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WILLIAM S. EDGAR, M. D.
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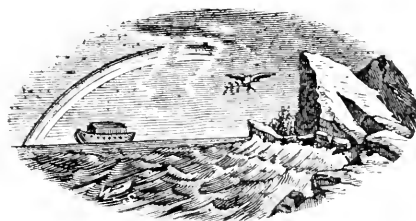
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ERRATA.

* In page 22d—10th line from top for *opinions* read *opiates*.

† Proper names in the Proceedings International Medical Congress:

For *Duvey* read *Duvez*; *Loudain Soudain*; *Warlsmont* and *Warlmout*, *Warlomout*; *Schmitzler*, *Schnitzler*; *Savcond*, *Jaccoud*; *Janessen*, *Jenssen*; *Bouillard*, *Bouillaud*; *Ledegauck*, *Ledegauck*, *Dalstauche*, *Delstauche*; *Smeth*, *De Smeth*; *Majin*, *Madjen*; *Bouchaut*, *Bouchut*; *Williams of Mans*, *Willeme of Mons*; *Ore's*, *Ore's*; *Nerite*, *Verite*; *Desquin*, *Desguin*; *Tausseus*, *Janssens*; *Dessaive*, *Depaire*; *Tiernesse*, *Tuernesse*.

THE SAINT LOUIS
Medical and Surgical Journal.
JANUARY, 1876.

Original Communications.

ANOTHER APPARATUS FOR TRANSFUSION.

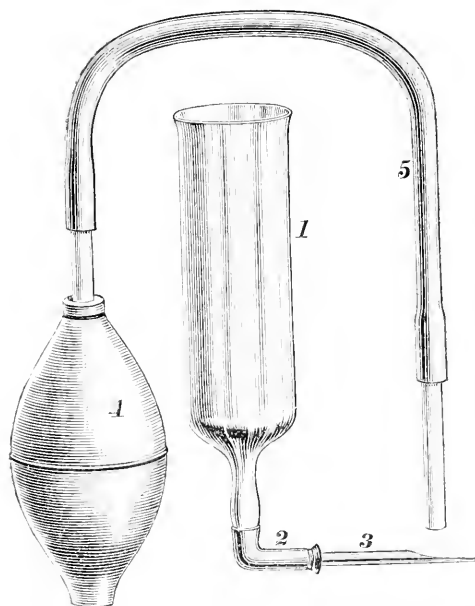
BY JOHN T. HODGEN, M. D.

The great number of instruments devised for transfusion is sufficient evidence of the difficulty experienced by those who have attempted this procedure in accomplishing it.

The instrument now presented meets many of the objections that may be urged against those in more common use.

It consists of a glass receiver (No. 1), capable of holding two or three ounces, having connected with its narrow funnel point, by means of a piece of india rubber tubing two inches long (2), a silver or block tin point (3), so constructed that the narrow end, being prolonged half an inch beyond the narrow opening of the tube, serves as a guide for passing the point into the vein of the patient.

The rubber bulb (4) is designed to fit the large upper opening of the glass receiver, and the tube (5) will transmit the air from the mouth of the surgeon through the rubber bulb (4) to the surface of the blood in the glass receiver (1), so that it may be forced into the veins of the patient.



1. Glass Receiver. 2. Elastic Connection. 3. Silver Tube. 4. Bulb. 5. Air Tube.

The instrument is used as follows :—

An incision is made one inch long, crossing obliquely the vein selected to receive the blood, half an inch on the distal side of a valve. When the vein is thoroughly exposed its wall is seized with a rat-toothed forceps, and, with a scissors, a V shaped cut is made, having the point of the V at the point of the forceps, and the branches extending toward the valve above. The forceps holding the wound open, the distal end of the cut vein is compressed to prevent the loss of blood, and every drop of blood in that part of the vein between the cut and the valve next above is pressed out. The long probe point of the silver tube (3) is passed into the opening in the vein, but not far enough to cover the opening in the silver tube. The hold on the vein with the forceps may now be released.

An assistant, having the arm of the donor properly corded, and the vein to be opened directly over the glass receiver (1), makes a large opening and allows the blood to flow into the receiver. As soon as the blood has begun to flow from the opening in the silver tube (3), the tube is pushed into the vein so that

its opening will be carried beyond the valve in the vein; and, when the glass receiver is filled, the rubber bulb (4) is placed in the top of the glass receiver, and air forced through the tube (5) and bulb (4) down upon the surface of the blood in the glass receiver.

The amount of pressure is regulated by the expiratory effort of the surgeon, and the flow is stopped at will by lifting the bulb, or by ceasing to expire through the tube and bulb.

With this apparatus there is no possibility of clot forming in the vein after it is opened, since no blood is left at rest in it. And yet, the blood after it begins to flow out of the silver point is at once conducted into the vein of the patient, and there is no possibility of the introduction of air. After the blood begins to flow into the receiver the operation is so rapidly completed that there is little danger of clotting; and, if a clot is formed in any part of the apparatus, the operator at once detects it by the increased resistance offered to expiration.

Should a failure occur, the apparatus may be easily cleaned and all clots quickly removed and the operation repeated. A few drops of a weak solution of soda, potash, or ammonia placed in the receiver before its use will retard the coagulation of the blood first entering it, and thus allow more time for the completion of the operation.

In the performance of this operation each assistant should be drilled, and the steps of the operation should be repeated several times before the operation is attempted, as it requires a nicety and promptness of manipulation not essential in any other operative procedure with which I am acquainted.

In the use of defibrinated blood the procedure requires much less care and may be accomplished easily.

DIPHTHERIA.

BY DAVID PRINCE, M. D.

A paper read before the St. Louis Medical Society, Dec. 18, 1875, (in which a weak solution of iodine in a perpetual spray is advocated).

An infectious disease, *i. e.*, a disease dependent upon agencies introduced from without, and not dependent upon a primary organic change in the system.

There are two views of the procedure of this disease: One, that the general system becomes first affected, as in small-pox, and that the local manifestations arise subsequently. The other, that the local manifestation is primary, and the general symptoms secondary.

According to the first view, the morbid agent must have a period of incubation followed by symptoms *first* general and *afterward* local.

Two other conditions control the theory of the spread or limitation of the disease:

One, the facility of yielding to the changes the agent tends to induce; the other, the power of resistance.

In all epidemics, the facile take the disease and the resisting escape. The most facile die, and the least facile recover. In this view, the objects of treatment are two:

One, to diminish the facility and increase the resistance, and the other to destroy the morbid agent itself.

The predominant theory entertained in this paper, is, that the morbid agent can be destroyed, and consequently, that the disease can be stamped out, to return only when favoring conditions give it an individual origin as in the first case which appeared.

The inspiration of this possibility is necessary to the contest, with a disease which skulks so stealthily and kills so surely.

A child has been exposed to the infection—in two or three days a slight general indisposition, and a slight, ashy discoloration upon the veil of the palate appear; the child walks about with diminished interest in his play and with a squeamish appetite; gets rapidly worse, and dies without obvious cause; or from inhibition of the heart's action; or an extensive membranous exudation covers the mouth, extends into the pharynx, into the

nose and Eustachian tubes with putrid decomposition of the exudations, and death results from rapid septic poisoning.

In other cases, the disease begins in the larynx, or extends into it, with engorgement or incrustation of the vocal cords and impediment to respiration; the patient dying of suffocation, if not carried off in one of the other ways: or the disease, with its train of exudations, travels down the trachea and into the bronchial tubes, producing first a rattle, as in bronchitis, and then complete solidification, as in pneumonia. The disease may begin wherever there is mucous membrane or a denuded surface of skin, and spread with no other limitation than the resistance either inherent or induced by treatment.

Trousseau relates a case of a patient whose chest became covered with an incrustation, beginning in a small patch in a point accidentally denuded. Commencing in any one place, it may spread or jump to others. It has its favorite seat in the back part of the roof of the mouth and the anterior surface of the veil of the palate, because, perhaps, this surface is especially exposed to the contact of air charged with the infection, the membranes more anteriorly being protected by the thickness of the epithelium, and inferiorly, by the saliva.

The morbid agent may attack wounds, whether conveyed by the air or inoculated directly by the contact of the products of exudation.

Though Trousseau and his associate Peler failed in their attempts to inoculate, the latter having the temerity to place in his own mouth lint soaked in the exudations of a diphtheritic patient, yet the proofs of inoculation by design or accident are too numerous to be denied. In Oertel's chapter on this subject in the first volume of Ziemssen's *Cyclopædia*, experiments are related of inoculation of the inferior animals—in the muscles by Oertel, Hueter and Tommasi, and in the cornea, by Nasseloff and Elbert. In these inoculations, the constitutional symptoms of diphtheria were produced, followed by the death of the animals.

The accidental inoculations have been numerous. It is not many years since Dr. Frick, a very distinguished physician of Baltimore, while medicating the throat of a diphtheritic patient received into his own mouth some of the morbid material coughed out by the patient. Local manifestations, general

symptoms and death followed in a brief period. Trousseau relates the case of his colleague, Valleix, poisoned in the same way with the same sad result, and of another, who lost his life by sucking the blood and mucous from a tracheotomy wound. Hardly a year passes without the record in the medical journals of the loss of some physician by the same accident.

The direct application of the liquid or semi-solid material to an absorbing surface, leads to a rapid development.

The period of incubation was in two instances found to be from two to five days by Oertel in his own practice. In these cases diphtheritic patients returned home and were kissed by members of the family, who in from two to five days manifested the symptoms of the disease.

With a resistance capable of opposing death by inhibition of the heart, by blood poisoning and by suffocation, the patient may subsequently die of palsy of the muscles essential to vitality, as those of deglutition, or suffer for weeks or months with palsy of palate or limbs, and through the power of resistance, inherent or induced by treatment, make a final recovery.

This palsy is supposed to depend upon some general condition; for, while it ordinarily attacks muscles near the part previously the seat of exudation, it is not always so. Trousseau refers to an instance of palsy of the palate following a case of cutaneous diphtheria.

While the palsy is gradual in its approach, affecting first a part of a muscle, then the whole muscle and other muscles during the period of increase, it leaves as gradually, and generally disappears entirely.

In Oertel's chapter already referred to, many pages are devoted to the proof that diphtheria is produced by, and attended with bacteria—especially bacterium sphericum or micrococcus,—concluding with the maxim, "Without bacteria no diphtheria."

This vegetation is supposed to penetrate the tissues and even to enter the blood vessels, poisoning the blood by its presence and imparting to it the property of staining, like plum juice, so that the patient may die of a double septicæmia, that of vegetable decay, and that of animal putrescence.

The appearance of albumen in the urine shows a profound influence upon both nervous and vascular systems, like that

which is produced in small-pox and scarlet fever. The condition is not distinctive of the kind of disease, but of its severity.

The existence of albuminuria is not supposed to sustain any uniform relation to the production of paralysis, as the latter condition occurs as a sequel of diphtheria in cases in which the urine has not exhibited albumen, though it occurs more often after the occurrence of this condition.

Whether, as a basis of observation and reflection, the hypothesis of a foreign growth, vegetable or animal, fastening itself upon the surface and penetrating the tissues be assumed or that of chemical changes under the influence of altered or defective vital forces, observation and verification, and not mere theory, must finally control the practice. Observation, however, must be controlled by previously accepted ideas, or it is all at random and can come to nothing.

While the origin of the disease by an infection is generally accepted, the mode of infection and the consequent ruling idea of that mode are conceived of either as primarily local, followed by general symptoms, like that of hospital gangrene and traumatic contagious erysipelas, or as general, like that of small-pox, followed by local manifestations.

The latter theory is accepted by Flint in his work on Practice. This is his positive language: "In cases in which the parts adjacent to the fauces become affected, the affection is not to be considered as spreading to these parts, but they are consecutively invaded; *i. e.*, the affection of these parts, as of the fauces, is a local manifestation of the constitutional disease."

This idea controls the practice, and he says: "Local treatment with a view to prevent reinfection of the system has no rational ground of support. Another object of local treatment is to arrest the progress of the exudation. But, with reference to this object, it is to be considered that the local disease does not, properly speaking, spread, but the progressive extension and successive invasion of different parts, are due to the agency of an internal determining influence. The restriction of the diphtheritic inflammation in one case to a small space, and its wide diffusion in another case, depend upon the essential morbid condition which constitutes the disease; and, if so, topical treatment will be likely to exert little or no effect in limiting the amount and the extent of the local manifestations."

On the contrary, the local origin of the disease has been the theory accepted by the great majority of the profession—by Bretonneau, who unified the disease and gave name to it, by Trousseau in his *Clinical Lectures*, and by Oertel in *Ziemssen's Cyclopædia*, the latter adopting the short expression already quoted, “Without bacteria no diphtheria.”

The short period of incubation, in cases of direct contagion, favors the theory of the local origin of the disease, and the consequent importance to be attached to local treatment.

In this view, we should say that the confinement of the disease to a point or small patch, or its failure altogether to germinate in one class, and in another class of persons its indefinite spread with albuminuria, inhibition of the heart, septic poisoning and subsequent palsy, depend upon the degree of resistance; the most facile yielding first to the implantation, and then to the local development, then to the constitutional disturbances and the subsequent deteriorations, while the most resisting present a soil unfavorable to the reception of the contagion and unfavorable to its subsequent manifestations.

In this view of the nature of the disease, the indications for treatment divide themselves into three classes :

1. To destroy or weaken the infection or contagion.
2. To increase the resistance of the constitution.
3. To remedy functional irregularity or impairment.

The result of observation is the theory of an infection which attacks the feeble and the strong alike, having an especial affinity for childhood. The first object, therefore, in the treatment of the disease, is the mitigation or destruction of this infection.

In the disagreement of theorists, it may, for our convenience, be assumed that the material of this infection is an albuminoid substance which acts as a virus, inducing changes like unto itself in the animal substances with which it combines. In this view, the bacteria feed upon this material, become saturated with it, and carry it wherever they go, imparting it to whatever they touch.

As vinous fermentation may be as well explained* in this way, it is simpler, to suppose with Pasteur, that the vegetation, in-

*See an instructive paper on Bacteria by Dr. L. A. Stimson in the *Popular Science Monthly* for February, 1875.

stead of merely accompanying and facilitating the albuminoid formation and diffusion, is really the cause of the albuminoid changes, the incipency of the process being spores derived from the atmosphere and implanted in an albuminous soil, instead of an original chemical change affording food for the organic growths.

If, according to Virchow, Oertel, and some others, the poison lies in the implantation and germination of bacteria—microscopic objects on the confines of the possibility of vision—the first, and constant indication is to weaken or to destroy the bacteria.

It is stated in the chapter in Ziemssen, by Oertel, that Lugol's solution is unfavorable to the existence of this minute vegetation. This is a clue to a possibly successful treatment. The objection to the stronger local applications is the impossibility in most cases, of completely covering the affected surface and destroying all the vegetation, while in the intervals of the applications the undestroyed growth goes on. If instead of the bold attack, a solution of a medicine unfavorable to the morbid agent can be employed, so weakened as to be constantly applied without injury to the surface affected, and to the air passages beyond, to which the disease may spread, a step in advance has been made.

Taking the hint of Oertel as to Lugol's solution, this compound has been very much diluted and employed as a perpetual spray to be breathed by the patient. Trousseau mentions the employment of medicated vapors by the apparatus of Sales-Giron, but does not state the kind or the temperature of the agents employed.

While ice, or other cold applications, may be agreeable and harmless in the mouth, it is undesirable to introduce a cold spray or vapor into the lungs.

Recognizing the importance of warmth and moisture to prevent the drying of the exudations, especially if in the larynx, and the favoring influence of warmth and moisture in inducing such a suppuration as may early detach the crusts, the suggestion has occurred to me to make some observations upon the effects of a weak solution of iodine blown off in a spray, or nebulization by the steam atomizer.

This apparatus supplies the theoretic conditions of treatment.

The problem is, to find an agent which is deodorant and antiseptic; which is unfavorable to bacterial growth, and can be employed with safety to the healthy mucous surfaces.

A solution, not stronger than one-fourth of a grain of iodine to the ounce of water, holding in solution four grains of iodide of potassium, can be inspired for a long time with impunity. The face of the patient should be about two feet from the apparatus in the expanded cone of the nebula. While the agent is applied to all the surfaces fanned by the breath, it is also absorbed and serves to oppose the septic tendency which is one of the dangerous elements of the disease.

The room in which the patient lies is at the same time pervaded by an iodine vapor, unfavorable to the spread of the seeds of contagion.

In cases in which the larynx has become the seat of incrustation, a very weak solution of lactic acid may be employed in alternation with iodine, on account of its known tendency to secure the softening, and, consequently, to prevent the hardening of the exudations.

With a temperature of 90° F. a moist atmosphere, and the breathing of the iodine spray from a steam jet, or by a hand jet from a hot solution, the conditions are secured which are unfavorable to the multiplication of the local disease, and unfavorable to septic poisoning.

At the same time that the patient is subjected to the slow but permanent action of iodine in this way, other treatment, both local and general can be employed.

Among the local applications, one in great favor is a solution of euechlorine, ordinarily extemporized by placing in a bottle some chlorate of potash, pouring in some hydrochloric acid, and then filling the bottle with water to absorb the vapor of euechlorine which results from the reaction.* The agent is antiseptic and deodorant, and when sufficiently diluted, can be swallowed with impunity. It cannot well be inhaled in the manner suggested for iodine, on account of its unfriendliness for the air passages.

*Dr. J. V. Black, of Jacksonville, has devised a convenient plan of an extemporized apparatus. In a wide mouthed stoppered bottle, half filled with water, is suspended a small phial half full of chlorate of potash, upon which hydrochloric acid is dropped by a dropping tube. The stopper is applied, and the chemical reactions develop the gas of euechlorine, which is absorbed by the water and escapes contamination with the acid.

The same objection applies to chlorine, bromine, carbolic acid and salicylic acid, all of which may be advantageously applied to the mouth and fauces in gargles or by brush or probang.

From the known power of tannin to harden this and other forms of false membrane, its use is contra-indicated.

Acetate of copper and honey found favor in Bretonneau's practice.

The strong caustics are coming into disfavor, not because they are wrong in theory, but on account of the impossibility, in most cases, of reaching the whole diseased surface.

Tincture of iodine, hydrochloric acid, nitrate of silver, chloride of iron, and the actual cautery have been resorted to, in order to stop the spread of the ashy discolorations, with some success, but with such disheartening failures as to lead to a distrust of the efficacy of local treatment altogether.

These ideas, with regard to the disease and its treatment, inspire the hope of its prevention, and the consequent suppression of an epidemic.

In the cases of laryngeal complications in which 95 per cent. die, new hope can be cherished of the success of tracheotomy. Without an antiseptic treatment, the local disease is likely to extend into the bronchial tubes, or to attack the wound, producing, in the patient, the effects which have resulted from the inoculation of animals. The latter results, however, can be opposed by the cauterization of the surfaces, as is done when the incisions are made in the method of galvano-cautery, or by the infiltration of the tissues with tincture of chloride of iron poured into the wound before the trachea itself is penetrated.

The excess of the liquid can be wiped out with cotton to save the sponge which would be ruined by the liquid.

The incision in the trachea is best made according to the method of Brainard, in a curved line, the convexity being to one side. A round piece, a quarter of an inch in diameter, is cut from the convexity to furnish an opening for respiration. The wound is held apart by a wire bent in the shape of an eye speculum.

The second indication is, to increase the constitutional resistance to the inception of the disease, and its reaction against it when once invaded. Alkalies and arterial sedatives, on the present accepted theory of the disease, are excluded, notwith-

standing the high favor in which carbonate of soda was once held in France.

Alcohol may aid in resisting the tendency to molecular dissolution. Chloride of iron may preserve the vital conditions of the blood, and, without our understanding its mode of action, quinia is probably the most powerful supporting agent.

Mercury is given upon the theory of its antiplastic power—a theory upon which alkalies are given, but modern experience is unfavorable. In croup, which is non-infectious, sporadic, and often hereditary, the conditions are different. The importance often placed upon food in the acute period is overestimated; for while the patient can eat he is likely to be fed, and when he cannot eat, he will not.

The third indication is, chiefly, to meet the palsies which follow in the train after reaction from the acute period.

The therapeutics include food, quinia, pepsin, friction, passive, motion, and, I should say, faradization, though Oertel is unfavorable to electricity in any form.

It is an encouraging feature of diphtheritic paresis and palsy that if the patient can be kept alive he will get well.

APHONIA—ITS CAUSES AND TREATMENT

BY WM. PORTER, M. D.

I desire to call attention to that symptom of disease known as aphonia, and to those conditions which give rise to it. In itself considered, aphonia may not be studied with interest by the profession at large, yet so frequently and intimately is it connected with diseases met with in the daily experience of every

physician, that I have no hesitation in proposing its discussion somewhat in detail.

Before speaking of the loss of voice, let us consider for a few minutes how voice is produced, and, noting the factors in its formation, we will see how, one or more of these factors being impaired, we have aphonia. Then I propose to consider the causes of aphonia in their relation to these elements in the production of voice, abandoning, if you please, the usual and time honored classification of organic and functional aphonia.

Voice is produced during expiration, by the air passing between the vocal cords which are drawn toward, but not as some writers have said, to the median line, for in the normal larynx there is always a small space, sometimes very small, between the cords during phonation. Were it not for this space the ligaments would be continually striking against each other, causing the vibrations to cease, and producing erosions, as is seen sometimes when a thickened and diseased cord touches its fellow. When the air is sent from the lungs along the trachea, it must force its way between the edges of the cords. This causes them to bulge outward, enlarging the space between them, and giving the air a freer passage. The pressure being removed, the elasticity of the cords causes them to return to their former position, when the air meeting with fresh resistance, the same phenomenon is repeated. The current of air is broken into a succession of waves by these vibrations or explosions, which is perceived by the ear as sound. The same thing may be observed if air is blown through a tube, across the end of which are stretched two thin elastic bands.

One of the main elements therefore, in phonation, is the current of air, the bow in this most perfect of all musical instruments, and this should be of sufficient quantity, and have free access to and through the larynx. A second factor is the vocal cords. These must be of true shape, well defined, and elastic. The slightest change in the outline or tension of a cord changes the rapidity of the vibration and so impairs the voice.*

If from any cause the cords do not vibrate, phonation, as a rule, is impossible.

*As an exception to this almost universal rule, let me mention a case now under observation, in which a gentleman who has had ulceration of both cords is able to phonate distinctly by means of the ventricular bands, which meet almost in the median line, and are thin and tense and vibrate when phonation is attempted.

Thirdly —As in phonation the cords rapidly change their position and relation, there must be unimpaired action of the muscles which move the cords. These muscles act in three different ways:—first, in adducting the cords; second, in abducting them; and third, in making them more or less tense, according to the pitch of the sound produced.

The different notes are due, not alone to the lengthening and shortening of the cords, but to the alteration in their tension, in the same way as the sound of a violin string is changed by turning the string peg. In falsetto notes, Muller thinks the sound is produced by the vibrating of the rim of the cord, while in the chest note the whole cord moves. Prof. Tyndall, in one of his lectures on sound, quotes Helmholtz, who says, the falsetto tone is due to the removal of the layers of mucus which lie under, and load the cords, thus making their edges sharper, and their weight less, while, their elasticity remaining the same, they are shaken into rapid tremors.

Our objections to this are—first, an increased amount of secretion in the larynx, does not always prevent the production of the falsetto notes; and second, the rapidity with which the falsetto and chest notes may be enterechanged.

But this is apart from our subject.

There are three things necessary then in the formation of voice; a sufficient amount of air passing outward along the trachea to move the cords, the cords must be in proper condition to respond to the action of the air current, both in shape and elasticity, and the cords must have the requisite tension, and approach the median line, or in other words, the muscles which move the cords must have unimpaired action. Of course, much more is needed for articulation. There the palate, tongue, lips, teeth, nares and nostrils are needed, but for the production of healthy voice sound, we have the three factors mentioned, and that disease which sufficiently changes or destroys any one of these factors, may produce aphonia. Now, if you please, I will note those diseases and conditions,—

First—Which prevent a due amount of air from reaching the larynx; *second*—Which affect and change the cords; and *thirdly*—Which destroy or impair the action of the laryngeal muscles.

Of the first cause of aphonia there is little to say. So small is the quantity of air needed to set the cords in motion, that

even in the most diseased chest and with the greatest debility, there is generally power enough to take up and expel air enough to produce sound. Yet in extreme cases of emphysema, or in the last stage of phthisis, we sometimes have aphonia, which is certainly due to the small quantity and force of the air expelled, as much as to the enfeebled action of the larynx.

A breach of continuity in the trachea may cause aphonia, by allowing the air to pass in some other way than by the larynx. This is almost universally the case in tracheotomy or laryngotomy, and voice is not restored so long as expiration goes on through the artificial opening.

The treatment of aphonia of this kind will readily suggest itself. In those cases where the volume of air is too small and weak, on account of disease in the lungs, that which will restore strength and capacity to the lungs will cure the aphonia; but unhappily, the curative treatment of these cases is yet to be discovered.

When aphonia follows tracheotomy, as soon as the artificial opening closes and the larynx resumes its normal condition, the voice is restored.

There are some cases in which tracheotomy is done on account of paralysis of the abductor muscles of the vocal cords. In this condition, the cords lie so near the median line as to hinder inspiration. Expiration is not impeded, for the cords are easily moved aside by a blast from within, while an inspiration causes them to close in the same way as a valve. Aphonia does not always accompany this condition, for the cords are in the median line, and the tensors may not be impaired.

My reason for speaking of this affection here, is, that when the paralysis is bi-lateral and complete, in order to relieve the dyspnœa, tracheotomy or laryngotomy must be performed. In the ordinary course of events we would have aphonia, for the very simple reason that expiration, as well as inspiration takes place through the tube. This may be prevented by a very simple contrivance. A tube is made, with a valve near the outer end, opening inwards, and an aperture near the convex inner portion. When the patient inspires, the valve opens, and the air enters through the tube; but when expiration takes place, the valve closes, the air is forced upwards through the opening in the tube, and passes through the larynx, acting on the cords and setting them in motion.

I have seen several of these cases in which inspiration was performed entirely through the tube, yet phonation was perfect.

Leaving this part of our subject, let us consider the second and more frequent cause of aphonia, change in the substance or shape of the vocal cords. Morbid change in the vocal cords may be a purely local lesion, and the disease producing it confined to the larynx alone, or it may be one of the symptoms of a constitutional disorder.

Of those causes that are purely local, we have acute and chronic inflammations, and morbid growths. Phthisis and syphilis are the constitutional diseases that most frequently give rise to aphonia, although it may be present with most of the exanthemata.

Acute inflammation of the larynx, or acute laryngitis, is a much more rare disease than might at first be supposed. Many practitioners of considerable experience have never met with it, and this is the more emphatic, considering how frequent are the acute inflammations of the surrounding regions, as pharyngitis and tonsillitis. Acute laryngitis may be preceded by a so-called sub-acute inflammation, such as a common cold, or it may be traumatic, following the inhalation of irritating vapors, steam or corrosive acids. It was this disease, resulting from a simple cold, that proved fatal to Washington, and the same malady, from the accidental inhalation of a corrosive acid, killed Prof. Palmer, of Vermont, a well known teacher of chemistry.

In acute laryngitis, the voice, which before may have been hoarse and husky, with the development of the more active inflammation, is lost. The progress of the disease is rapid, the patient suffers from dyspnoea, the pulse is hard and frequent, the cough is dry and croupy, the respiration is accompanied by stridor, and swallowing is sometimes difficult.

The laryngoscopic appearances in a case of well marked acute laryngitis are marked. In the early stages the mucous membrane is of a bright red color, and the vessels distended. Soon after œdema sets in; the epiglottis is red, swollen and semi-transparent, the ventricular bands are much inflamed, and sometimes almost, if not quite, hide the vocal cords. These, when they can be seen, are of a bright red color, and swollen. The hyperemia and œdema not only change the shape of the cord but destroy

its elasticity, and so long as this condition remains, the aphonia is complete.

The severity and danger in acute laryngitis, do not depend on the intensity or extent of the inflammation. The same amount of inflammation in almost any other part of the body would be comparatively trivial. The gravity of the disease is due to the fact that the usual products of inflammation, in this situation, obstruct the passage of air, owing to the small size and unyielding walls of the larynx. The symptoms rapidly become urgent. Flint mentions a case in which death ensued in seven hours. Of course the severity of the case depends on the amount of œdema, but in all instances a guarded prognosis should be given. The treatment is general and local. A good saline cathartic should be at once administered, and if there be time, mercury may be given with a view to an antiphlogistic effect. Locally warm fomentations or counter irritation around the throat and inhalations of steam are recommended, the latter being used with care.

When the œdema is marked, scarification, by means of a guarded laryngeal lancet, seldom fails to give relief, if done effectually—but there should be no half-way measures. Mineral astringents, applied locally are useful, after the scarification. When these remedies fail, tracheotomy must be resorted to; nor should this be deferred too long. A comparatively short time since, I saw a case in which life might have been saved, at least prolonged, had the surgeon had five minutes more time. As it was, the patient was dead before the operation could be completed.

Chronic Laryngitis is of much more frequent occurrence than the acute form, and consequently, may exist without having been preceded by it. Generally it follows what some writers term sub-acute laryngitis or a common cold. So nearly allied, however, are these two diseases, or rather two stages of one disease, that we will consider them as one. In chronic laryngitis the most marked symptom, perhaps, is the change in the voice, which may be husky and hoarse or completely lost. Besides this, there may be some pain at times in the throat, a little stridor during rapid respiration, cough, and sometimes, if the inflammation is extensive, there may be difficulty of swallowing from the pharynx becoming involved. When examined by the laryngoscope,

there is seen more or less congestion of the mucous membrane around the larynx, not of a bright red color like acute inflammation, but duller and more of a brick dust hue. The cords may be congested throughout their whole extent, or one, sometimes only part of one, may be affected. Frequently an injected vessel can be traced the whole length of the cord, the red line showing distinctly on the white background. More frequently both cords are colored and are seen to bulge slightly from the inflammatory infiltration, and there may be slight erosions where the cords on account of their swollen condition touch each other during phonation. This is the case in what is known as "clerical sore throat." A speaker addresses a large assembly for an hour or more, during which time the muscles and vocal cords are in rapid action, which produces some local hyperæmia. This and subsequent exposure to cold air determine a slight inflammation. The cords become a little swollen and injected, and the voice husky. Another speech or sermon is delivered and the symptoms increase. What was at first only a little congestion and fullness of the cord gives rise to erosions where the edges strike against each other; these are aggravated by the use of the voice, and aphonia results.

The prognosis as far as life is concerned is favorable, but in cases of long standing and in old people, the utmost care and perseverance is required to effect a cure. Where there is hoarseness or aphonia, perfect rest of the parts concerned must be enjoined. The patient must be forbidden to speak aloud, and sudden changes of temperature are to be avoided. The medicinal treatment consists in the use of aperient and antiphlogistic remedies, and the local application of some mineral astringent, chloride of zinc being perhaps the best; a solution of about twenty grains to the ounce being the most useful. Inhalations of creosote or oil of pine wood are often beneficial, and, if there is much irritation, chloride of potassium in lozenges may be given.

Another cause of aphonia, in this connection, is the presence of a growth which may produce hoarseness or entire loss of voice, either by being attached to the vocal cord, and impeding its action, or by preventing the action of the muscles which move the cord. These tumors may be benign or malignant. Of the former the papillomata are the most common. Not in-

frequently a growth of this kind may be seen projecting from the vocal cord and readily recognized. When the tumor is small there is generally hoarseness, but if large, it produces aphonia, not only by changing the shape and destroying the vibrations of the cord, but also by growing toward the median line it prevents the approximation of the cords.

Of these tumors, Sir James Paget says, "In their general form and arrangement, they have many points of resemblance, but on an enlarged scale, to the papillæ which in various localities constitute natural projections from free surfaces, more especially from the skin and mucous membrane. To some extent they correspond with each other. Their basis is formed of connective tissue which is continuous with that which normally exists in the part, whilst the free surface is covered by an epithelium which may vary in its thickness and the number of its layers according to the seat of the tumor. Blood vessels and even nerves enter into the interior of the papillæ. When a number of these new papillary growths become aggregated together, they form a tumor of some size." This kind of growth shows a greater tendency to return than any other of the benign varieties. Fibrous tumors are rare in this position. There are several recorded cases of cystic tumor of the vocal cords. I have seen but one; a small cyst situated on the left cord, which did not cause aphonia or any other inconvenience.

Other kinds of benign growths (as the *Sarcomata Fibro-cellular* and *Lipomata*), are so seldom seen in the larynx that it would be trespassing on your time to more than mention them. The treatment is, removal of the cause. This is done either by means of the laryngeal forceps, or the *écraseur*, or by caustic. A very satisfactory method of treatment in these cases is the destruction of the growth with chromic acid or London paste. The writer uses a delicate laryngeal probe, to the end of which is firmly attached a small glass bead. This bead is roughened on the side which would touch the growth and to this the acid or paste is easily affixed and can then be applied to the part intended. Where the tumor can be easily reached, especially if it be a papilloma, or cystic, forceps bent at right angles with a cutting edge are perhaps the best and simplest instruments that can be used. When the growth is removed, restoration of the voice is rapid. In one case of aphonia a growth extended

from one cord to the other like a huge web. The patient, a young lady, had never spoken properly, and the inference was that it was congenital. The growth was removed at three operations, when phonation became perfect.

Of malignant growths, the most common is the epithelial, although this is rare, compared with the occurrence of other morbid diseases in the larynx. It generally being in the epiglottis and may be well determined before aphonia is produced.

Prof. Stoerk of Vienna showed me a case in which the right half of the epiglottis and apparently the greater part of the anterior of the larynx was destroyed by an epithelioma, yet strange to say, the patient had neither aphonia nor dysphagia. When there is loss of voice in malignant disease of the larynx, it is most frequently caused by thickening and ulceration of the vocal cords, and this condition is not present during the early stages. There are a few cases of encephaloid cancer of the larynx on record, but they are "few and far between."

Of course the prognosis of cancer here as anywhere else is unfavorable, and the treatment palliative. There is seldom anything gained by an attempt to remove the growth or part of it, but the dyspnoea may become so great that tracheotomy may have to be done to afford temporary relief.

The diagnosis of laryngeal growths must be made by the laryngoscope. It is not likely a mistake will be made where a benign growth can be seen, but it may take great care and repeated attempts to discover it. Incipient malignant disease may be mistaken for laryngeal phthisis. The differential diagnosis will be noted when we consider the latter subject.

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(Concluded next month.)

SULPHATE OF CINCHONIDIA.

In the "Druggists' Circular, &c.," for November appears an article, originally published in the London *Lancet*, written by Surgeon Major Geo. Yates Hunter, of Bombay, on Sulphate of Cinchonidia, that must be quite perplexing to those who have used that article of medicine with quite different results, so much so, in fact, as to raise at least two questions: First, Whether the drug used by Surgeon Major Hunter is the same as that manufactured by Powers & Weightman and Rosengarten & Sons; or, whether the malarial fevers of Bombay are different from those of this country? For one I must say that one or tho other must be fact, if Hunter gave the drug a fair and unprejudiced trial. I would modestly suggest that the drug did not have a fair trial. He says "I treated fifty-five cases of fever, chiefly intermittent, of a mild form, due to sudden changes of weather, exposure to cold, privation, &c., or indiscretions in diet." Now, what does such a trial amount to? And the particulars in regard to these cases given by him are not worth anything, for no intelligent practitioner lays any claims for Cinchonidia or for quinia in such cases.

He further states that, in several instances of a severe type, Cinchonidia completely failed and quinia had to be resorted to. "And in one bad case of remittent fever, which I regret to say ended fatally, Cinchonidia was tried for two days, and was discontinued on account of proving ineffectual," (and here leaks out a secret) "thus *strengthening my impression*;" &c. What impression? How was this impression produced? Surely, not from his own experience, if he states that experience correctly and fully, and he certainly has no desire to say anything in favor of Cinchonidia.

I have prescribed Cinchonidia in the place of quinia for 18 months, have used over 125 ounces, have never prescribed over 40 grs. per day, have used it in intermittent, remittent, typho-malarial and congestive cases, have used it in over 1500 cases, and am as well satisfied with its therapeutic affects as with those

of quinia; have never had to resort to quinia or any other agent to arrest any case that could be arrested by a Cinchona alkaloid.

Dr. Hunter states that it produced headache *almost amounting to semi-congestion of the brain*. Now, what pathological condition is that? It is certainly very finely put. It produces far less cerebral disturbances than quinia.

As to its locking up the secretions, I will simply say it does just the reverse in this part of the United States of America, whatever it may do when combined with opium at Bombay.

I can write nothing more in answer to, or criticism of Surgeon Major Hunter's article; and but for the fact that it is desirable the profession should know the truth in regard to its materia medica and therapeutics I should not have written one word on the subject now. I have no axe to grind, no hobby to ride, do not condemn quinia. I would be glad to have every one who wishes a good substitute for quinia try Cinchonidia fairly, with a view to test its merits alone.

It seems to me, Dr. Hunter must have had sulph. of cinchona on trial. His article fits my experience with that agent exactly, excepting the headache *almost amounting to semi-congestion*.

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THE INTERNATIONAL MEDICAL CONGRESS.*

Mr. Editor:—From a reliable source I am able to send you a few notes in relation to the proceedings of this Body. I have not yet seen any extended notice of the action of the association in any of the journals in this country, except here and there a few lines,

The translations were made by M. Julius C. Cretin, of New York

The International Medical Congress, or to quote its official title "*Le Congrès périodique International des Sciences Médicales*," held its fourth session in the city of Brussels, Belgium, on the 19th, 21st, 22nd, 23rd, 24th, and 25th, days of September last. Its sessions were therefore continued five days, during which many great and important questions of public interest were discussed. Although preceding sessions were important, yet foreign journals characterize this as the most important in the history of the organization and one that will leave a brilliant and durable trace in the history of science.

The association opened on Sunday the 19th of Sept. This appears to be the custom of many foreign countries; Sunday is a great *fête* day and all undertakings of any dignity or importance are inaugurated on that day. It was under the presidency of Mr. Vlemingx, and with the sanction of the government of Belgium. The president of the Congress is also president of the Belgium Royal Academy of Medicine. (The members of the Committee of Management were M. M. Deroubaix, Bellefroid Croix, and Warlsmont, the latter being secretary, Drs. Duwey and Verriest, being secretaries to the meetings. Dr. Delacosse of Rue de l'Hôpital had the duty of giving information to strangers.)

The Congress, in the conduct of its business, differed very materially from the usual method adopted by the British Medical Association and associations generally in England and in this country. The usual method is for individuals to present papers and read them, after which discussions follow, each paper being discussed immediately after being read. At this meeting the discussions arose on different series of questions decided by a committee, on each of which a "Rapporteur" had set forth his conclusions as to the actual state of knowledge on the subject. A programme was sent out setting forth the conclusions of the "Rapporteurs" in the several sections, so that intending speakers were enabled to controvert the same. This circular was printed in the French language and the same language was by universal consent adopted as the medium of inter-communication.

The questions treated during the session of the Convention or, as our transatlantic friends put it, "*Congrès Périodique*," among others were: Prophylaxis of cholera; alcohol in therapeutics; the inoculability of tubercle; surgical anæsthesia; the

dressing of wounds after operations; maternities; the vaso-motor nerves and their modes of action; the value of experiments founded on artificial (schematic) circulatory apparatus; the sanitation of work-shops in which phosphorus is used; the organization of the service of public hygiene; the manufacture of beer; defects of vision, from a military point of view; the means of registering hearing power and registering it in a uniform manner in all countries; defects of hearing, from a military point of view; the moral and legal position, and the disposal of criminal and dangerous lunatics; should the medical use of chemically defined immediate principles be extended and the new preparations of them multiplied in pharmacopœias; the establishment of a universal pharmacopœia; a plan for unification of instruments, scales, tables, and records of clinical observation, etc, etc.

Allow me to present you a brief *résumé* of the proceedings.

First day, Sept. 19. The Congress opened at one o'clock precisely. His Majesty was received at the entrance of the Palace by the members of the Bureau, and was escorted to the seat reserved for him. He was accompanied by Lieutenant Gen. Londain de Neiderwerth *aide-de-camp*, and Captains Brewer and Baron V. d' Anethan, officers of ordinance. M. Vlemingx occupied the chair. Authority was granted by the king to open the session, and the President addressed the assembly. He thanked the king for granting encouragement to science by his presence, and in the name of the Congress besought him to accept this expression of profound gratitude. The address was one of congratulation, and exhortation to diligently apply their energies to the amelioration and elevation of the condition of the people. He closed by reference to the indebtedness of the Congress to M. the Minister of the Interior for facilitating its organization: and in the name of his colleagues as well as his own, he would proclaim him 1st Hon. President.

M. Delcour, the Minister of the Interior arose and thanked the gentlemen for the high distinction thus conferred upon him, and hoped that the session might be a success.

The Congress was then permanently organized by proclaiming, on the suggestion of M. Jestelin of France, the Provisional Bureau a Permanent Bureau.

Various Honorary Presidents were then proposed.

For Germany, M. Von. Langenbeck.

Great Britain, M. M. Bowman and Critchett.

Austro-Hungary, Profs. Von Sigmund and Von Hebra.

France, M. M. Bouillaud, Larrey, Verneuil and Saccond.

Italy, M. M. Profs. Semmola and Palasciano.

Luxemburg M. Dr. Aschman.

Roumania, M. D. Marcowitz.

Turkey, M. Genl. Doctor Ahmed.

Holland, M. Prof. Donders.

Others were to be proposed in future.

The Secretary, General M. Warlmount, then delivered a long address, reviewing the past sessions of this Congress, the origin and growth of internationalism in medical matters etc., etc., and the society closed its first session.

Session of Sept. 21st (2nd sitting.) After the ordinary routine, the President read several notices and offered as new Hon. Presidents, M. M. Manayra of Naples, Pasquali of Rome, Nicolaeu of Constadt, Van Cappelle and Eggeling of the Hague, Schmitzler of Vienna, Gross of Buda Pesth, Gustave Bergmann of Stockholm.

M. Feigneaux of the Committee of Maternities reported substantially the following conclusions:

(1.) Urgency of a radical reform in the system of assistance to women in confinement. (2.) Complete abandonment of large maternities. (3.) Instead of large maternities with school of obstetrics attached, replace them by small houses for the purpose, with separate rooms. (4.) Create a house of exchange, situated in the vicinity of the maternities, with complete furniture, and completely separated from the medical direction. (5.) Extending, as far as possible, assistance of every description at the domicile to pregnant women those delivered.

M. Jenessen read the conclusions of the Fifth section.

Report of M. Crocq, "On the Sanitary Measures in Workshops where Phosphorus is Manipulated." The following conclusions were adopted: The section of public medicine expresses the wish, (1.) That the use of red amorphous phosphorous be substituted for that of ordinary phosphorus in all match-factories. (2.) Until the universal adoption of this radical measure, it recommends, in the actual conditions of manufacturing, the following measures which are designed to prevent general toxic accidents and more especially maxillary necrosis; installations of the manu-

facturing in sufficiently spacious rooms ; powerful ventilation promoted by the aid of tubes, beginning at the ground and terminating in a drawing chimney ; constant attention to cleanliness ; together with these physical means, use as a chemical antidote, the Spirits of Turpentine. (3.) Local accidents may be averted by astringent gargarisms, and above all, by the obligation imposed upon manufacturers to admit none into their workshops, who, by oral examination, present dental lesions, such as penetrating decay, or any other affection of a nature to favor the deleterious action of phosphoric vapors. (4.) Children not to be employed in workshops where phosphorous is used. (5.) When the authorities allow the establishment of manufactories where that substance is used, they must impose these conditions and see that they are observed, for the interests of workmen as well as of manufacturers who are criminally responsible for accidents resulting from their carelessness or neglect.

M. Ledegauck read the conclusions of the seventh section: "On the Means of Measuring the Acuteness of Hearing and of Registering its Degree in a Uniform Manner in Every Country ;" by Dr. Dalstanche, *père*.—

Every complete examination of the degree of hearing among patients necessitates the use of the three following means : (1.) the tone ; (2.) the pitch ; (3.) the voice.

Mr. Smeth read the conclusions of the labors of the eighth section, "On the Moral and Legal Status and *Placement* of the Criminal and Dangerously Alienated."—

(1.) The section declared that in countries where the number of the condemned alienated is sufficient to create a complete hospital service, it is expedient to completely separate that class of patients. (2.) By adopting the conclusion of M. Remal, the section expressed the wish that, in all other cases, those patients remain mingled promiscuously with the other alienated, and submit to the regime of surveillance and isolation necessitated by their mental state and the security of their surroundings.

Conclusions of the ninth section :

The section, in accordance with the wishes expressed on the utility of a universal official pharmacopœia, proposes to the Congress to wait for the communication of the project revised in St. Petersburg before they discuss the question.

Sept. 22d. The session opened at 2 p. m. The President proposed to nominate as Honorary Presidents, Drs. E. C. Harwood, of New York, and Adrian, of Logansport, Ind., delegates from the American Medical Association, and also M. Majin, Vice President of the Pharmaceutical Society of Copenhagen.

M. M. Mahaux and Carpenter read the conclusion of the first section on the report of M. Lefebvre, on "Prophylaxy of Cholera."

(1.) The prophylaxy of Asiatic cholera must be based upon an etiological understanding of the disease, as far as possible. (2.) Cholera is a specific disease—that is to say, it is produced by a morbid principle always the same, and cannot be produced by any other. (3.) The cholera-genic principle in its essence is unknown to us, as is also the generating principle of variola, scarlatina, small-pox, etc.; but we are in possession of very important knowledge as regards its prophylaxy, its origin, attributes, and the laws of its propagation and evolution. (4.) Origin. The cholera-genic miasma develops itself spontaneously in certain parts of India, especially the delta of the Ganges, and the low countries around Madras and Bombay. Starting from these original foci, it has been transported at different times to Europe, Africa, and America, resulting in those great epidemics still fresh in the memories of all. However, limited outbreaks of cholera have been witnessed in Europe after the disappearance of the great epidemics above mentioned. Are these explosions due to spontaneous production, in European soil, of the cholera-genic miasma, or are they to be attributed to the tardy development of the miasma left, so to speak, in store by the preceding Asiatic epidemic? [The reporter adopted the last view]. However that may be, it is none the less true that the Indian cholera can acclimatize itself in Europe by either spontaneous production on the one soil through its generative principles, or by the indefinite preservation and regeneration of the miasma primarily brought from India. (5.) Attributes of the cholera-genic miasma. (a.) This miasma regenerates itself in the subjects attacked by cholera, and is transported from them to others on the bodies of healthy individuals; it provokes among them the development of the disease; in other words, cholera is essentially contagious. (b.) The cholera-genic miasma conducts itself in the same manner as do soluble or volatile bodies; for it is dissolved in water, and is spread

in the atmosphere where it maintains itself in a state of homogeneous diffusion—that is to say, without accumulating in any decisive point. (c.) The morbid power of the choleraenic miasma is less energetic, less fatal in its action than that of other miasmata and other viruses. (d.) It is not very permanent; it appears to be destroyed very promptly, especially when the air is strongly ozonized. However, in certain conditions of confinement, out of the air, it can preserve itself a long time. (e.) This miasma is destroyed by a high temperature (100° and above), and by a considerable number of chemical agencies. This question still claims some study in order to arrive at practical precision and clearness. (f.) Individuals exposed to the action of the choleraenic miasma, acquire, in a rather short time, a sort of habit which places them out of the influences of the disease. (6.) Laws of propagation of Asiatic cholera. (a.) The contagious principle of cholera resides principally, if not exclusively, in the dejections of the patient (matters vomited, and above all, intestinal evacuations). (b.) It can be communicated from a patient to a healthy individual by different channels, among which may be noticed, after the dejections themselves, (a.) the patient; (b.) the cadaver; (c.) the linen and clothes worn by them; (d.) the apartments, vessels and vehicles in which choleraics have been; (e.) the water closets; (f.) the water which may have been contaminated by choleraic dejections; (7.) the air, but at a short distance, say a few hundred metres; (8.) the animals, the goods which may have been full of choleraenic miasma, etc., etc. (7.) Chronic impregnation and evolution. (a.) Choleraenic miasma penetrates the economy through the pulmonary mucous membrane and the digestive organs. (b.) The time of its incubation is from several hours to a few days at its maximum. (c.) The moral and unhygienic conditions of a depressive nature favor the evolution of choleraic poisoning. (8.) The prophylaxy of cholera is deduced from these etiological conditions. The first indication is to destroy, by sanitary measures, the original foci of cholera in India, and its secondary foci in Europe. The second indication is to prevent the transportation of the morbid principle, to healthy countries, by all really efficacious means which are compatible with the exigencies of modern civilization. The third prophylactic rule is to neutralize the miasma by disinfectant measures which

remain to be determined. Finally, we must endeavor to diminish the ravages of cholera by hygienic measures well understood.

M. Masoin read the conclusions of the fourth section "on the Vasomotor Nerves and their Mode of Action."

M. Bouchaut read a memoir "On the Cerebroscope and the Results which have followed the Application of the Ophthalmoscope to the Diagnosis of Brain Disease." He circulated among the assembly several pathological specimens as evidences of his observations.

M. Lendet presented the results of his studies on the nature and state of the alcoholized in different classes of society. M. Palasciano read a memoir "On the Hygiene of the Tomb," and expressed a wish for the return of the custom of cremation.

THE AMERICAN DELEGATION.

Address of J. A. Adrian, of Logansport, Ind., delegate from the American Medical Association.

Mr. President:—For three years the American Medical Association has sent its delegates to the British Medical Association, and other kindred European societies, with the special object of asking their concurrence and coöperation in maturing a plan of uniformity of instruments, scales, tables, and records of clinical observation.

The American Medical Association hailed, with fraternal feelings, the call for this International Medical Congress, and with hopes (your first programme containing a motion to create a uniform method of measuring the defects of audition, this being part of the programme) of unity of all the means of observation advocated by the American Medical Association; we cannot help feeling that if you find that part of the plan right, you will have stronger reason to support the whole.

The medical profession would find many advantages accruing from the adoption of this uniformity; common measures would restore the communication of thoughts between us better than a common language.

Mothers and nurses could be made useful recording assistants by giving us the true signs and symptoms previously to and between our visits, and they would soon comprehend the true nature of disease and cure, instead of falling into the supernatural notions which are now forced upon them.

For these and other reasons, the American Medical Association urges upon the International Medical Congress the necessity of organizing an International Commission, having, for its object, to devise a plan for uniform means, instruments, scales, and clinical observation, and to report on the same at the next meeting of the International Medical Congress.

Dr. Adrian was followed by the reading of the address by Dr. E. C. Harwood of New York, delegate from the American Medical Association.

ADDRESS OF E. C. HARWOOD, M. D.

Mr. President: The remarks of my friend and colleague, Dr. Adrian, cover nearly all that is to be said in behalf of a uniformity of measures. I wish, however, to urge, in behalf of my constituents, the absolute necessity and great advantage to be derived from a uniform system of weights and measures.

This want has long been felt by the profession in America; and in a country so rapid in its progress, the wonder is that a more advanced system has not been adopted. This may be accounted for, in part, on the ground that America naturally follows in the footsteps of the mother country; but the time has now come when parent and offspring must no longer remain in opposition to the metric system. We might just as well set ourselves in opposition to gravitation, except that we can, as two great nations, delay and retard a matter of human progress, while we could not retard gravitation.

When I say that I am heartily in favor of the metric system, I think that I represent the sentiment of my countrymen in the medical profession. We desire to see it introduced into our country as rapidly as it can be done wisely. Our colleges and high schools all teach it, and should be earnest advocates for its more permanent introduction into our public schools, since all such reforms must be forwarded by incoming generations, leaving the old system to die out gradually with the generations as they pass away.

There is no longer any doubt with us in regard to the metric system. For there are, at present, many of our best manufacturing chemists, among whom I might instance E. R. Squibb, M. D., of Brooklyn, N. Y., who have for many years used the system for all nice work.

Nearly all of our best men regard the metrical system as well

assured and secured upon the safe ground, first, of the growing necessity for something better than the old system, and second, that it is very much better, and probably quite good enough for the next two thousand years; and that it has been as a system, so well constructed, and so well matured, that in less than eighty years, or two generations, it has had inherent force enough quietly to obtain the approval of a large majority of civilized nations, and is favored, if not adopted, by the best educated classes of all nations.

Sitting Sept. 23d.—Dr. Vlemingx in the chair. Dr. Petersen, Vice President of the Danish Medical Federation, was named Honorary President.

Report of 2d section read by M. Bouquè—reporter, Dr. Williams, of Mans. "On Surgical Anæsthesia." This subject, not being susceptible of solution, the section proposed to reserve its decision. M. Bouillard claimed for Ore's method the benefit of the welcome reception due to every new idea, supported, however, on conscientious observation and experience.

Among the subjects of interest presented this day was that treated of in the 5th section, "On the Organization of the Service of Public Hygiene." Reporter, M. Belval.

The public service of Hygiene requires a double organization 1st, a national organization; 2d, an international organization.

I. A national organization would comprise:

(1.) The establishment by law in each country of councils of hygiene or salubrity. (a.) A superior council under the Governmental authority. (b.) A provincial commission in each of the departments, provinces, prefectures, circles or districts. (c.) A local committee in each commune where that organization would be possible.

(2.) For communes too small for the institution of a committee, sanitary circumscriptions would be established, comprising several communes or sections of united communes.

(3.) The surveillance (and if necessary the execution), of hygienic measures recognized as of public utility would require. (a.) A general secretary to the superior council. (b.) A secretary to the provincial commission, over each province. (c.) A secretary to the local committee, in each commune or group of communes.

These could be supplemented in their labors by members of the council or of the commissioners.

(4.) Reports would be published at least annually, by each branch of the service.

(5.) These services could have intercourse with one another, independently of their relation with the leading office.

(6.) The more independence and authority these sanitary services have in their sphere of action, the greater would be the popular hygienic advantages.

(7.) The budget of each of these services would constitute a part of the respective administrations to which they are attached, in the same manner as the service of instruction and that of public benevolence.

II. The international organization would comprise:

(1.) The frequent and regular exchange of communications between the superior councils of hygiene of the different countries. These communications would bear principally: (A.)

(a.) On the means employed to ameliorate the sanitary conditions of localities and populations; (b.) on the hygienic measures taken for the purpose of decreasing the effect of endemic disease; (c.) on the precautions taken to prevent the importation of epidemic or contagious diseases; (d.) on the appearance of the foci; (e.) on the measures adopted to combat epizootics; (B.) on the results obtained in each case; (C.) on the statistical data compiled or to be compiled for the purpose of elucidating the problems of public hygiene.

(2.) The periodical meeting of sanitary international conferences.

Mr. Chapman read a memoir on "Prostitution in England, and the Effects of the Measures decreed for the Extirpation of Venereal Diseases in the British Army." His conclusion look toward the erjection of the regulation of prostitution.

M. Sigmund recognizes the happy effects of the regulating measures recently taken at Vienna, which have resulted in a decrease in the number, gravity, and duration of venereal diseases.

Mr. Vlemingx was astonished to find that the usefulness of those means should be doubted, and gave an *exposé* of the "regulation visits" and the mode of admission of women in civil hospitals, and venereal subjects in military hospitals.

M. Pini, of Milan, deplored that the anti-regulation propaganda of English doctors, is not restricted to England, but extends to the Continent. He believed the public laws, especially as they exist in Italy, unjust and inefficient.

M. Nericé pointed out cases of non-sexual contagion, and insisted that by the aid of authorized publications the public should be warned against this mode of infection.

M. Vlemigkx believed that liberty of prostitution in England would contribute a great danger to the Continent. Hygiene must be international; and he invoked the common action of all nations. He cannot conceive how a nation which has decreed vaccination obligatory, does not take measures against syphilitic infection.

M. Chapman, supported by his statistical labors, was of the opinion that regulations against prostitution develop and promote clandestine prostitution, and as such militate against their purpose.

M. Sigmond referred to the regulations in use in the admission of venereal subjects in the hospitals of Vienna.

M. Drysdale did not believe in the efficacy of the measures taken by the Brussels administration, and gave some data in support of his views—the exactness of which was questioned by the President.

Sitting of the 24th session. M. Vlemingkx presiding. Minutes read, etc.

M. Carpenter read the conclusions of the 1st section on "Alcohol in Therapeutics," by Dr. Desquin, of Antwerp. The section is of the opinion that the indications for the use of alcohol either in acute or chronic diseases, is infinitely less than the too enthusiastic partisans of that therapeutic measure have pretended. And furthermore, under certain circumstances, where the therapeutic value of alcohol is recognized, the indications can be better fulfilled by other agents. In these cases he does not hesitate to recommend those agents and to proscribe alcohol, fearing that the recommendation by the physician would be construed, by the vulgar, as a license for its use, beside detracting considerably from scientific authority for the use of alcohol. The only circumstance which establishes the necessity of administering alcohol, and when that agent cannot be replaced by any other, is the certainty of anterior alcoholic

habits. In these cases alcohol becomes indispensable.

The conclusions of the 5th section were read by M. Sausseus; reporter, M. Dessaire, Prof. at the University of Brussels. Subject, "The Manufacture of Beer."

(1.) The grading of beer can only be applied to fermented beverages prepared by the aid of cereals and hops.

(2.) No foreign substances can be introduced in beer for the purpose of replacing the articles named wholly or in part.

(3.) Substitutions of this kind must be considered as falsification constituting a fraud as to the nature of the article sold, even when not injurious to the health.

(4.) However, all substances proper to give to beer either a sweet taste, a greater limpidity, a longer preservation, or a suitable color, may be used if they exert no injurious action on the health.

M. Gaetano Pini explained the school for rachitic children, which he had established at Milan, and the results obtained by his method of treatment.

Sitting of September 25. The President in the chair. Minutes of the last meeting adopted, etc.

M. Tiernesse remarked that an establishment similar to that described by M. Pini in the last session, had existed and been in operation sometime in Ixelles.

M. Delstauche read the conclusions of the 7th section. Reporter, Dr. Ch. Delstauche. Subject, "On the Defects of the Auditory Organ as regards the Military Service."

After several other reports had been read the Congress adjourned to meet in Switzerland in 1877.

I would add, in conclusion, that a telegram was received from Dr. Wm. B. Atkinson, of Philadelphia, inviting this organization to convene in that city in honor of the centennial of 1876. The telegram was enthusiastically received; but before its reception arrangements had been completed for holding the next meeting. The American delegation was informed, however, that representatives would be sent to participate in the ceremonies on that occasion.

In this connection, we would notice the fact that arrangements have been made to hold an International Medical Congress at Philadelphia in 1876; but whether it has any direct connection

with the Congress just held does not appear. If this be true, there will be in existence two such organizations. We would suggest the combination of the apparently rival and opposing bodies.

GEO. W. WELLS, M. D.

Proceedings.

SAINT LOUIS MEDICAL SOCIETY.

ST. LOUIS, October 30, 1875.

The President, Dr. T. Kennard, in the chair.

Dr. Prewitt presented a large ovarian cyst, which he had removed on the 14th of the month, with the following history of the case :

The patient, Mrs. O——, was 39 years of age and the mother of six children, two of whom have been born since the existence of the tumor. After one of her confinements, eleven years ago, the midwife found so great enlargement of the abdomen left that a physician was called, who pronounced it “dropsy of the bowels.”

This supposed dropsy continuing she was tapped three months after her confinement, by Dr. A. Hammer, and two buckets of water drawn. Eighteen months afterwards she again became pregnant, and on the 23d December, 1866, she was delivered of a female child, which is now living. Over two months after this confinement she was again tapped by the same surgeon. This afforded relief until 1870, when the distension was again so great as to require tapping. In 1874 she was again tapped, for the fourth

time, by the same surgeon. After this last tapping she again became pregnant, and miscarried of a foetus at four months.

During the last summer and fall the abdomen had again become very much distended, and she was becoming emaciated. Dr. P. saw her, and having made a diagnosis of single large ovarian cyst, free from adhesions, advised operation as the best course under the circumstances. Having gained her consent he operated on the 14th of October, assisted by Drs. Hodgen, Lankford, J. M. Scott, Bauduy and others.

He had attempted enucleation, after the manner of Professor Miner, of Buffalo, but the rupture of a large vein induced him to apply a Well's Clamp. He believed he had gained much by the partial enucleation, however, as it furnished a long pedicle, instead of a broad, short one, as he would have had otherwise.

The Dr. thought his experience in this case would enable him to succeed better in another similar case, by enucleation.

He was very favorably impressed with Professor Miner's method, by which means we are enabled to drop the whole pedicle in the pelvis, and close completely the external wound.

The wound was brought together with silver-wire sutures and compresses of cotton and bandage applied. The patient, he reports as rapidly recovering, scarcely a bad symptom having occurred.

No adhesions were found, and the character of the cyst confirmed the diagnosis in every particular.

Dec. 29. This patient continues well at this date, and has greatly improved in health.

Reviews and Bibliographical Notices.

THE CHOLERA EPIDEMIC OF 1873. Published by the U. S. Government. One volume of nearly 1,100 pages, 8 vo. Published in accordance with a joint resolution of Congress, Adopted March 25, 1874.

The first part of this work, on the Cholera Epidemic of 1873, is written by Dr. John M. Woodworth, Supervising Surgeon U. S. Merchant Marine—Hospital Service. This comprises 28 pages, in which are found, "A series of propositions condensed from the vast mass of cumulative evidence, which has been laboriously collected by a multitude of cholera students in both hemispheres; and these propositions are intended to bear solely upon the question of the exclusion of the disease from this country:

I. Malignant Cholera is caused by the access of a specific organic poison to the alimentary canal, which poison is developed spontaneously only in certain parts of India, (Hindostan).

II. This poison is contained primarily, as far as the world outside of Hindostan is concerned, in the dejections—vomit, stools and urine, of a person already infected with the disease.

III. To set up anew the action of the poison a certain period of incubation, with the presence of alkaline moisture is required, which period is completed in from one to three days, a temperature favoring decomposition and moisture, or fluid of decided alkaline reaction, hastening the process; the reverse retarding.

IV. Favorable conditions for the growth of the poison are found (1) in ordinary potable water, containing nitrogenous organic impurities, alkaline carbonates, etc.; (2) in decomposing animal and vegetable matter, possessing an alkaline reaction; (3) in the alkaline contents of the intestinal portion of the alimentary canal.

V. The period of morbid activity of the poison—which lasts, under favorable conditions, about three days for a given crop—is characterized by the presence of bacteria, which appear at the

end of the period of incubation, and disappear at the end of the period of morbid activity. That is to say a cholera-ejection, or material containing such, is harmless, both before the appearance and after the disappearance of bacteria, but is actively poisonous during their presence.

NOTE.—It is not meant by this that the bacteria so found are the cholera poison, since they differ in no appreciable manner from bacteria found in a variety of other fluids. Indeed, Lebert hints that bacteria may even be the destroyers of the poison, destroyed by otherwise innocent bacteria of putrefaction and fermentation.*

VI. The morbid properties of the poison may be preserved in posse for an indefinite period in cholera-ejections dried during the period of incubation, or of infection-matter dried during the period of activity.

VII. The dried particles of cholera-poison may be carried (in clothing, bedding, etc.,) to any distance; and when liberated may find their way direct to the alimentary canal through the medium of the air, by entering the mouth and nose and being swallowed with the saliva—or, less directly, through the medium of water or food in which they have lodged.

VIII. The poison is destroyed naturally, either by the process of growth or by contact with acids: (1) those contained in water or soil; (2) acid gases in the atmosphere; (3) the acid secretions of the stomach.

IX. It may also be destroyed artificially (1) by treating the cholera-ejections, or material containing them, with acids; (2) by such acid(gaseous) treatment of contaminated atmosphere; (3) by establishing an acid diathesis of the system in one who has received the poison." p. 8.

These propositions are strengthened by details of preventive treatment in which dilute sulphuric acid was used in "about twenty drop" doses in four ounces of water sweetened with white sugar, given daily.

The celebrated "Austrian Specific" was composed of sulphuric and nitric acids. "Elixir Halleri or Liquoracidi Halleri (one part

*This accords with views we set forth before the St. Louis Medical Society in November, 1872, in reference to putrefaction and fermentation being the *destroyers* of variolous and vaccine virus, and not the poison itself.

concentrated sulphuric acid, with three parts of alcohol) has been much used in India, and is ordered as part of the medical stores of the British army there." p. 18. Further on this subject he says, p. 19, "Beginning with the year 1814 the cholera literature down to the present time abounds in proofs, clinical, physiological, pathological and meteorological, of the efficacy of sulphuric acid, and there can be little doubt, despite the *dicta* of the last International Sanitary Conference, that *we possess in the mineral acids a certain means of prophylaxis against cholera.*"

NOTE.—The lessons of the epidemic of 1873 point strongly to the value of sulphuric acid, even as a therapeutic agent against the disease. According to Dr. McClellan the mortality among cholera patients treated with acids was only 8 per cent., while the lowest mortality rate where other remedies were used was 23 per cent., and the highest 59 per cent."

It is safe to say that malignant cholera can be excluded from our shores with reasonable certainty through an intelligent sanitary supervision of the mercantile marine. * * * For nothing is more clearly proven by the history of cholera than that epidemics of this dreaded disease can be controlled by *rigorous hygienic measures*. *The true remedy against cholera is preventive medicine.*"

Strongly confirmatory of the above views are the results of Nedswetzky's *experiments with fifteen articles* of the *materia medica* as, given by Dr. McClellan, p. 32-33. These medicines were used to ascertain their effect upon the bacteria formed in cholera-dejections. The following articles were used and in the following order: (1) *quinine*, (2) *camphor*, (3) *carbolic acid*, (4) *tar*, (5) *calomel*, (6) *opium*, (7) *nux vomica*, (8) *tannic acid*, (9) *chloroform*, (10) *sulphate of iron*, (11) *chlorine water*, (12) *sulphuric acid*, (13) *muriatic acid*, (14) *nitric acid*, (15) *chloral hydrate*. In all of these substances the bacteria lived, except those commencing with tannic acid and ending with nitric acid. Especially by the sulphuric acid, chlorine water and nitric acid solutions the bacteria were promptly killed (did not return to life on being transferred to distilled water). Dr. McClellan says, page 90, "Dr. Nedswetzky, of Yaroslav, near Moscow, has apparently discovered the cholera-bacterium, which is developed in enormous quantities in the discharges, * *. He suggests the latter six remedies (8, 10, 11, 12, 13, 14.) as the most efficient against cholera."

PART SECOND, comprises *A History of the Travels of Asiatic Cholera in Asia and Europe*: By John C. Peters, M. D., of New York City, and in North America, by Eli McClellan, M. D. Assistant Surgeon U. S. A. In eight chapters.

The first chapter gives the history of epidemic cholera up to A. D. 1817. The second chapter gives account of the epidemic of 1817 in India, which reached China to the east in 1820, and Russia in the West in 1823. Chapter three gives account of the epidemic of 1826 and 1827 in India, reached Russia in 1829 and England in 1831. Chapter iv—the epidemics of 1832, 1833 and 1834 in North America.

The remaining chapters give the history of the epidemics of 1841, 1850, 1854, 1864 and 1867 in Asia, Europe and North America. Chapter viii is on cholera in India. The study of this subject is greatly facilitated by the numerous maps furnished of the countries and lines of travel observed by the disease. This second part is a valuable addition to the work.

THE BIBLIOGRAPHY OF CHOLERA, by John S. Billings, M. D., contains, alone, over 300 pages, giving the full titles of works, journals and articles of more or less importance on the subject of cholera.

The volume contains a number of maps of countries; states and cities where the disease has existed, illustrating its course and spread. We have noticed a few typographical errors—one on page 23, in the prescription of Dr. Edgar: the $\bar{3}ij$ should be $\bar{3}ij$.

This notice is already too long. We must say the work is a monument of well directed labor; and it should be at least in every public library in the land, and the principal facts should be familiar to every medical man. H. Z. G.

TRANSACTIONS OF THE TWENTY-FIFTH ANIVERSARY MEETING OF THE ILLINOIS STATE MEDICAL SOCIETY, held in Jacksonville, May 1875. This is a very presentable volume of 288 pages, 8vo. being neatly bound in cloth.

The address of the president, Dr. J. H. Hallister, is a model of good taste and sound in common sence. In the minutes of the first day we notice the loss of much precious time in discussing (in open session) a trivial matter pertaining to fees, better referred to a

committee. A commendable feature of the Transactions is the attempt to report the discussions which followed the reading of papers ; but it is to be hoped that future efforts will be more successful ; we are aware of the extreme difficulty of reporting accurately and satisfactorily an impromptu debate with here and there a *lapsus lingue* to be omitted and a word or sentence to be supplied, to make intelligent to *readers* the meaning of the speaker: e. g., page 68, the speaker is made to say he “knows nothing about quinia, as ignorant as a Hottentot with regard to it ;” when he doubtless meant to say and probably did say “if Da Costa’s theory was true” which words being omitted, the paragraph conveys the opposite of what was intended. On the 138th page the words “*of letters*” are omitted, in the sentence, “The empire hails from the East.” By supplying after empire the words “*of letters*” the sentence is intelligible. Again, the speaker is made to contradict himself on the 139th page by being reported to have said “we have not changed our *practice* [*diagnosis*] but have other remedies” Again, in discussing the report on gynæcological instruments page 212, 6th line from top by substituting *and* for *that* the meaning is entirely changed ; again, instead of “These gentlemen came from cities of wisdom” it should read “gentlemen at these centers of wisdom are sent for” &c.; again, instead of saying “the patient in all these cases uses an appliance” it should read, “the patient in these cases of adhesion should use an appliance to make a lift on the uterus for a time and then let up ; thus by an intermittent pull to gradually work it up from its attachment ; that Stevenson’s vaginal stem pessary had been found useful ; that the *intra-vaginal* pessary was of no use in these cases, that it prevents contraction of the walls of the vagina, at best. Further on, same page 212, another obscure and unmeaning paragraph occurs, viz., “what we need is an instrument that will *change* the uterine a little, &c., should be, *move* the uterus a little at a time, make a lift for a few days and take it off, so by degrees work the uterus up. The speaker is reported to have said the Hodge pessary—or Fitch’s modification of it—may be used to advantage in these cases of adhesion ; which is simply absurd, it being recommended by the speaker for an entirely different class of cases, viz., where the walls of the vagina are greatly relaxed. To digress a little, with regard to the use of the *intra vaginal* pessary, not distending the walls of the vagina as

Dr. Fitch contends in the discussion above referred to, that he "does not allow the instrument, to distend the vagina the pressure coming upon the ring, &c.," we have to suggest that the ring is attached to the bars of the pessary so as to transmit the pressure to the walls of the vagina, the amount of pressure being determined by the weight or pressure of the uterus upon the ring, it may be little or it may be much; but it must be that some pressure on, and some tension of, the walls of the vagina, is produced by the pressure of these pessaries if they do any good in propping up the uterus, for the bars are not supported in the air.

We reserve for a future issue notices of the several papers read and published. E.

FIVE ESSAYS ON HOSPITAL PLANS, Their Construction, Organization, and Management. Contributed for the use of the Trustees of the Johns Hopkins Hospital of Baltimore, Md. 8vo. Pp. 350. Illustrated with numerous engravings of ground plans and elevations of designs proposed.

It will be remembered that a wealthy, benevolent citizen of Baltimore, Johns Hopkins, left a large sum of money to construct and maintain a hospital for about four hundred beds, also an Orphan Asylum and a University.

The trustees of this large estate being anxious to carry out the wishes of the testator as perfectly and wisely as possible, selected five gentlemen from different States, eminent in the medical profession and of known experience in hospital construction and management, to write up their views and preferences as to hospital plans and management; it being understood that they were to be compensated for their labor.

The persons selected for this responsible work were John S. Billings, M. D., Br't Lieut. Col. and Ass't Surg. U. S. A.; Norton Fulson, M. D.; Joseph Jones, M. D.; Casper Morris, M. D., and Stephen Smith, M. D.

A circular letter was addressed to these gentlemen explaining and setting forth in general terms the amount to be expended, number of bids the medical teachings of students from the university &c, with reference to the latter we are pleased to see that some of the essayists at least anticipate *small classes* of medical students where thorough work is done, that the days of large classes is past drawing to a close a few students well prepared,

when the teaching and conferring of degrees is done by men paid independently of tuition or fees by the students. It is a practical question before the designers of hospitals whether a class of thirty or three hundred is to be provided for. The time for large classes in trust has passed never to return, that *quality* is henceforth to be considered rather than *quantity*.

The John Hopkins trustees have done a good and wise thing in publishing these essays. We have not the space to compare the merits of the several plans submitted, suffice it to say the "pavillion plan" one or two stories, is decidedly in the ascendant, the old style of four or five stories, has had its day, a thing of the past, we trust never to be revived.

This book we doubt not will be consulted by all state and municipal authority interested in hospital construction and administration.

Future structures for these purposes will be monuments to the wisdom and humanity of the essayists in giving not alone to the Johns Hopkins Hospital but to the country at large the benefit of their studies and experience in this important interest.

The book advertises Wm. Wood & Co. for excellent work as publishers; certainly every public library in the world should be supplied with a copy. E.

A PRACTICAL TREATISE ON FRACTURES AND DISLOCATIONS. By Frank Hastings Hamilton, A. M., M. D., LL. D., Surgeon to Bellevue Hospital New York, etc., etc. Fifth Edition, revised and improved. Illustrated with three hundred and forty-four wood-cuts. Philadelphia: Henry C. Lea, 1875. 8vo., pp. 831.

It is just fifteen years since the first edition of this valuable work was issued, now enlarged by the addition of seventy-five pages of text and numerous illustrations, a monument of industry and ability of which its author may well be proud. It is one of the few American medical works with which the profession at home is conversant, and the teachings of which are familiar to, and are heeded by the profession abroad.

As the former editions have been fully noticed in the pages of the JOURNAL, at the dates of their issue, an extended review is not at this time necessary. But the different editions, as from time to time they have been demanded and have been issued, have

come to us like the welcome visits of an old friend ; it has been each time improved, with some few former ideas modified, or, possibly, abandoned, new thoughts, new truths recorded, new assertions sifted, and a constant striving "to ascertain precisely how much, with the knowledge and appliances at our command, we were able to accomplish."

Dr. Hamilton is conservative. He is careful not to recommend unless he has assurance of real worth. We have known medical men who, having, as they supposed, made original observations in regard to certain fractures, or having devised ingenious apparatus for the treatment of the same, have been surprised and incensed that the doctor did not adopt their views, indorse their appliances and incorporate them in his work. But, unless the new ideas could find agreement with our author's own good reason, and until the new splints had met the *experimentum crucis* of practical test-trial, he very properly neither approved nor endorsed. This work proves that he fully appreciates the responsibility he owes the profession in these particulars.

That the book is voluminous is no objection, for it does not claim to be a mere hand-book, but a complete treatise, and it is the most so of any extant. Malgaigne's great work, to which too great meed of praise in its day could not be given, is long since out of print, and wanting in the practical advances of the present. When we come to read we do not regret that the subjects are so fully treated. For example—the chapter on intra-capsular fractures of the *cervix femoris*, though including twenty-four pages, is so interestingly presented that one having commenced will not lay down the book until he shall have completed the chapter. And thus we could specialize in regard to many single fractures and dislocations. But wherever we turn we find the same exhaustive treatment, practical conclusions and advice. Thus we cannot too greatly urge upon the general practitioner, as well as the surgeon, that this new edition be found upon their tables.*

A. J. S.

*In a future number of the JOURNAL we hope to consider in detail some facts that are especially new in this edition, and some points in which our author differs from certain of his fellow members of the profession

VISION—ITS OPTICAL DEFECTS AND THE ADAPTATION OF SPECTACLES. Embracing, first, Physical Optics; second, Physiological Optics; third, Errors of Refraction and Defects of Accommodation, or Optical Defects of the Eye; with seventy-four illustrations on wood, and selections from the test types of Jæger & Snellen. By C. S. Fenner, M. D., Philadelphia: Lindsay & Blakiston, 1875, 8 vo. pp. 291.

This is an entirely new book, presented by the publishers in a very attractive form, intended to give, in the words of the preface, "in a concise and popular, yet comprehensive form, a *résumé* of our present knowledge of Physiological Optics and of the defects of the eye as an optical instrument," and is well calculated to furnish the general practitioner with a large amount of information on the subjects comprised in its table of contents:

I. Physical Optics—Light. II. Physiological Optics—Visual Sensation, Visual Perception. III. Errors of Refraction and Defects of Accommodation—Hypermetropia, Myopia, Near-Sightedness, Astigmatism, Difference in Refraction of the two Eyes.

These chapters contain, in addition to the ideas of the author, formulas, plates and many extensive quotations from Donders, Helmholtz, Snellen, Stellwag and others, which make altogether a very readable, and, to the general practitioner, a valuable book. B.

FLINT'S HUMAN PHYSIOLOGY IN ONE VOLUME. A Text Book for Students.

As this work has received the earnest endorsement of the profession as a standard work for reference, and each volume has been noticed in the JOURNAL on its appearance, it is only important at present to speak of the work compressed to one volume as a *text book*. The pages being enlarged and the type reduced, this volume, of nearly one thousand pages, still contains all "excepting bibliographical citations and matters of historical interest" of the important matter contained in the five volumes.

Therefore this volume has nearly the value, as a work of reference, that the first edition has, with the great advantage and convenience of one volume to handle; hence the sale of it must largely supercede the sale of the original work, particularly in

these days of busy life, when the naked skeleton of facts is preferred to elegance in style.

The profession will extend to this volume a hearty welcome, as an earnest of appreciation of the author's industry and success in original investigations in this most important branch of medical science. E.

HINTS IN THE OBSTETRICAL PROCEDURE. By William B. Atkinson. M. D., Philadelphia: Collins, printer, 1875.

Originally an address by the author, before the Philadelphia County Medical Society, "re-written for the present form on account of the extensive call for it."

This book is not intended to supplant any of the more extended works extant, but to be suggestive to, and to aid the accoucheur in certain matters connected with the obstetric art.

The subjects briefly considered by the author are False Pains, Slow Dilatation, Inefficient Pains, Ergot, Quinine, Rupture of the Membranes, Position, the Vectis, the Forceps, the Binder, After-Pains, Retention of Urine after Delivery, Purgatives, Hæmorrhage, Convulsions, Artificial Respiration, Breech Presentations, Nourishment of the Child, Retracted Nipple, Nourishment of the Woman.

These several subjects are treated concisely and the methods advised, generally orthodox, always sensible.

We are prompted to suggest that a little narrower page, protected by a *soft leather cover*, would greatly add to the convenience of carrying it in the pocket. E.

SURGICAL EMERGENCIES, together with the Emergencies Attendant on Parturition and the Treatment of Poisoning. A Manual for the use of the General Practitioner. By William Paul Swain, F. R. C. S., with 82 illustrations. Philadelphia: Lindsay & Bakiston, 1874. 12mo., pp. 189.

"A small book, containing directions for the immediate treatment of all those various emergencies which the general practitioner may be called upon to treat at any moment." A chapter on the emergencies of parturition, by Dr. A. Meadows, and one on the treatment of poisoning have been added. Also a chapter on Antiseptic Treatment, written by Dr. Bishop. Mr. G. Lawson contributes a chapter on "Injuries to the Eyes," mak-

ing seven chapters written with clearness and condensation, supplied with a full table of contents alphabetically arranged.

The author claims little more for his work than a careful compilation from the best and most recent authors as a convenient guide to the busy practitioner, and as such it is to be commended. E.

ANNUAL REPORT OF THE SUPERVISING SURGEON (John W. Woodworth, M. D.) OF THE MARINE-HOSPITAL SERVICE OF THE UNITED STATES FOR THE FISCAL YEAR 1874. Washington.

The most noteworthy item in this concise and comprehensive report, is the comparative cost of hospital construction on the *pavillion plan*, as contrasted with the old plan of large buildings. On page xi, under the head of Government Hospitals we are furnished with an account of a government marine hospital, recently constructed at San Francisco on the *pavillion plan*, "completed for \$58,790, about *one-seventh* the average amount of other government hospitals of like capacity."

If it should prove, as has been feared, that these isolated wards should not be entirely free from *hospitalism*, still, as the poison must be more diluted, the effect must be less, which, with the great economy in construction, security against fire, convenience of access, &c., must result in their universal adoption where the ground surface can be obtained. We congratulate the profession and country on having so able and faithful an officer in this branch of the public service. E.

BOOKS AND PAMPHLETS RECEIVED.

PHYSICIANS' VISITING LIST. Fifty Patients a week. By Tilden & Co. Every Physician who expects more than 25 patients a week requires one.

PHTHISIS. Its morbid Anatomy, Etiology, Symptomatic Events and Complications, Fatality and Progress, Treatment and Physical Diagnosis. By Austin Flint, M. D., Philadelphia: Henry C. Lea, 1875.

(For Sale by the St. Louis Book & News Co.)

HERMAPHRODISM. From a Medico-Legal Point of View. By Basile Poppes Co. Translated from the French, By E. W. Sawyer, M. D., (Harv.)

THE TRANSACTIONS OF THE AMERICAN MEDICAL ASSOCIATION. Instituted 1847. Vol. xxvi. Philadelphia: Collins, printer, 1875.

VICK'S FLORAL GUIDE. Published Quarterly. By James Vick, Esq. Price, 25 cents a year. Rochester, N. Y.

This favorite puts in its appearance these festive days as smiling and fragrant as ever. The lovers of the beautiful may feast their eyes on this number, and cannot fail to subscribe, so liberal are the terms. Who that has a garden would be without a *Guide* to its successful cultivation when it may be had for a quarter!

Extracts From Current Medical Literature.

Sudden Death after Uterine Injection of Iron.

The following case was reported by Dr. Cederschiöld before the Swedish Medical Society, and it is of interest, as being another instance where injection of fluids into the uterine cavity has been followed by sudden death. The patient was pregnant for the second time. A considerable hemorrhage followed the birth of the child, the uterus did not contract fully, and the fundus could be felt over the pubes. Ergot was of little use, and the hemorrhage recurred from time to time. Eighteen days later a strong solution of the perchloride of iron (1:7) was injected into the uterus. Every precaution was taken; the syringe was freed from air, the pressure of the piston was gradual, etc., but when the injection was half completed the woman suddenly complained of pain in the breast, stretched backward, drew a few short breaths, and was dead.—*Medical Record.*

Insects in the Ear.

Dr. Burrall mentioned a case where an insect walked out when the canal was artificially lighted up by holding a lamp in front of the ear.

Dr. Messenger calls to his aid the force of gravity in removing foreign bodies from the ear, and places the patient upon the side and throws the stream up into the ear while this position is maintained.

Dr. W. T. White related a case in which he removed a roach, about three-fourths of an inch long, from the ear, and it became necessary to use both the forceps and syringe. The serrated edges of the wings of the animal prevented him from backing out of the ear, and he died in the canal. The removal was piecemeal.—*Medical Record.*

Contagiousness of Scarletina.

Dr. D. D. Spear, of Freeport, writes to the editor of the *Medical Record*, No. 263, an account of several outbreaks of Scar-

latina, and from facts observed draws the following conclusions:

First, It is barely possible the disease may have arisen once independently in the cases cited, though this is doubtful.

Second, An unaffected person may be the carrier of the poison over a distance of many miles.

And Thirdly, The character of the disease is not determined by the peculiar features of the disease from which one may become infected, but rather by some existing condition in the person attacked.

A Case of Urethral Calculus.

Reported by Dr. J. T. Bontelle, of Hampton, Va., in the Boston Medical Journal, Dec. 23d, 1875. * * *

July 3d. Chloroform having been administered to the patient by Dr. Selden, of Hampton, I made an incision one inch in length into the urethra just anterior to the stricture. Through this incision the first and second pieces or sections were removed without difficulty; on attempting to pass a sound through the wound into the bladder the others were found, with a little trouble extracted with dressing forceps. A large steel sound was then easily passed into the bladder, and a stone could be felt. No attempt was made at this time to dilate the stricture. The wound was left open, and a cold wet compress wrapped around the penis. The man recovered well from the chloroform, and passed water freely through the wound.

July 4th. Patient had passed a comfortable night and was feeling very well. Scarcely any constitutional disturbance and no bad symptom of any kind observed. Water passed easily through the wound, and none through the fistula in the perineum. Recovery perfect.

Nil on the Treatment of Gonorrhoea.

In the Report of the Pennsylvania Hospital (*Philadelphia Medical Times*, June 19,) Dr. Neill says the common treatment of gonorrhoea used to be, and, to a certain extent still is, the administration of stimulating resinous diuretics, principally cubeba and copaiba. The abuse of these medicines is worse than the disease itself, and they have undoubtedly been the cause of much of the chronic urethritis and cystitis which now exist. They have also been productive of much dyspeptic trouble, especially since the introduction of capsules, admitting of large

doses. It may therefore be laid down as a treatment of gonorrhœa, never to begin with eubels or copaiba. In such a case as this, and, indeed, in all cases, in the early inflammatory stage Dr. Neill advises the following prescription:—

R Potassii bitart., ʒiv;
Potass. nitrat. (pulv.), ʒiij;
Potass. et ammon. tart. gr. j

This should be ground in a mortar and thoroughly incorporated, and then divided into twelve powders, one of which is to be taken three times daily.

The result will be at once a diminution of the action of the kidney and the whole genito-urinary tract, the blood will furnish the vascularity and hyperæmia of the genital organs is removed. The discharge will, of course, diminish, and the patient complains that it is as well to mention the possibility of the disease becoming chronic with the result of a more disordered condition of the system, especially to the kidneys, loss. The patient will, however, be more comfortable, and may be ordered a diet of gruel, rice, and vegetables, and water, and a few drops of some aromatic essence, such as lemon, or peach, or orange, or cinnamon, or clove, or nutmeg, or bergamot, or any other, to be added to the gruel. The amount of food should be small, but frequent, and the patient should take a few drops of some aromatic essence, such as lemon, or peach, or orange, or cinnamon, or clove, or nutmeg, or bergamot, or any other, to be added to the gruel. The patient should be ordered a diet of gruel, rice, and vegetables, and water, and a few drops of some aromatic essence, such as lemon, or peach, or orange, or cinnamon, or clove, or nutmeg, or bergamot, or any other, to be added to the gruel.

Stage 3.—The patient is now in the third stage of the disease.

We will suppose the patient to have the next attack of ague, followed by fever and sweating stage, to take place for the first time, at three o'clock P.M. During the *Stage 3*, it is necessary to give not less than fifteen (better twenty grains) of quinine, and to give it in a bolus, or powder, or solution, or in preference to pill form, unless freshly prepared.

If the bowels and stomach are disordered, or if a tendency to constipation exists, an active purgative, such as two or three pill, cathart. co., should be administered either at once or at night.

Until the next paroxysm, which we will further suppose to occur on the second subsequent afternoon (tertian type), some such prescription as the following:

R. Quiniae sulph..... ʒss.
 Acid. sulph. aromat.(or dil.).....ʒi.
 Syr. zingiberis.....ʒ ss.
 Aquæ cinnamom. ad.....ʒ iiij.
 M.

S.—A dessert-spoonful every three or four hours.

Before the next expected paroxysm, this prescription (twelve doses) will probably have all been taken, and very frequently this treatment is sufficient, there being no further "chills;" but, not knowing positively whether there will or not, it is advisable to anticipate, and give, *one hour* before the next expected attack (which, in our supposed case, would be about 2 p. m., forty-eight hours after the first attack), not less than ten, preferably fifteen, grains more of quinine.

This amount (the first dose of twenty, in the prescription or mixture thirty, and the last dose of fifteen, making in all sixty-five grains), in the majority of cases most generally completely and permanently "cures" the patient, who may never again suffer from ague, unless peculiarly and constantly exposed to malarial influences.

This we cannot say is the result obtained by any means through the ordinary mode of prescribing quinine, viz., two or three grain pills, three or four times daily; this mode of administration merely sufficing to check the disease for two, three, or more weeks after the patient ceases to take it.—*Medical Record*.

A paper on rectified spirit (*spiritus frumenti rectificatus*) by A. W. Miller, M. D., Ph. D., is published in the *American Journal of Pharmacy* for November, 1875. The writer thinks that pure rectified spirit possesses merits and advantages which heretofore have not been properly appreciated by physicians. "French spirit," "sweet liquor," and "rectified spirits" are terms used by the liquor trade to designate pure rectified whisky freed from fusel-oils, coloring matter, and other impurities. It is obtained by percolating the ordinary raw corn whisky through fresh charcoal. It is the basis used by compounders of fancy liquors for their cordials, etc. All the various fusel-oils in a concentrated form have peculiarly penetrating and oppressive odors, but it is on these in various proportions and admixture that the distinctive flavor of different liquors depends. It is by no means certain that the medicinal virtue of spirit is enhanced in the smallest degree by the costly flavors which characterize

the choicest cognac, Jamaica rum or Bourbon. In the plain rectified spirit, however, we possess a liquor of almost absolute purity, which deserves to be regarded as the type of a simple arterial stimulant. It can be obtained everywhere with facility, of standard and uniform strength, and at a fraction of the price of the fancy flavored liquors. The conclusions are the following. Rectified spirit is almost always strictly pure, while the more expensive liquors invariably contain fusel-oils, and frequently other impurities. The market price of rectified spirit is at present from \$1.25 to \$1.50 per gallon, that of the fancy flavored liquors from \$2.50 to \$12.00. While the taste and odor of rectified spirit is not so tempting as that of the choice cabinet liquors, it is entirely free from the disgusting taste and smell of ordinary diluted alcohol. It has not yet been established that the more expensive liquors are in any way superior to rectified spirit, or that their physiological action presents tangible points of difference.—*Boston Medical Journal*.

Gelsemia.

Dr. J. Ott, *Philadelphia Medical Times*, July 31, offers the following as the conclusions drawn from his experiments as to the physiological action of gelsemia:

1. In cold-blooded animals it paralyzes first the sensory ganglia and then the motor ganglia in the central nervous system. This order is reversed in warm-blooded animals.
2. It diminishes the pulse and pressure.
3. This decrease of pulse rate is due to lessened irritability of the excito-motor ganglia of the heart.
4. The fall of pressure is due to diminution of cardiac irritability and vaso-motor tonus.
5. It decreases the respiration through a paralyzing action on the respiratory centres.
6. It dilates the pupil.
7. It reduces the temperature.

Dr. Ott's experiments were performed on frogs, rabbits and kittens. He appends a brief statement and analysis of nine cases of poisoning by gelsemium in the human subject, showing a complete analogy between the symptoms observed in these, and those experiments produced in the lower animals.—*Chicago Journal of N. and M. Diseases*.

Mechanism of the Action of Quinine by the Circulation.

Dr. Vincent Cherone has made, at the Muséum d'Histoire Nat-

urelle, some very interesting experimental researches on the action of quinine on the circulation. He shows that, as Giacomini has stated, quinine is a powerful hyposthenisant; it lowers, in small doses, the arterial tension, and reduces the systolic force of the heart. The following are the conclusions in full of Dr. Cherone:

1. *Quinine causes the arrest of the heart in a diastole, greater than the normal and the cadaveric diastole.* This arrest does not depend upon direct action on the innervation of the heart, for when this is suppressed in part or in whole it has no effect on the action of quinine.

2. *Quinine acts on the cardiac muscular fibre, and causes arrest in diastole without destroying its contractility.* Besides the separate contraction of each muscular fibre, or of the muscular bundles separately by a violent electric excitation, the contractility is shown by the action of the venom of the toad which revives the movement of the heart, and causes its arrest in systole. We believe, therefore, that quinine acts on the extensibility, causing a change in the molecular arrangement with a new disposition of the primitive muscular elements.

3. *Quinine favors the diastole in the same manner as it causes the dilation of the vessels.* Dilation of the vessels by quinine is primary and active, and does not depend on an action on the vasomotors, for in destroying the innervation of the vessels of the ear of the rabbit (auricular branch of the cervical plexus, branch of the fifth pair and the sympathetic), we also obtain it.

4. *Quinine acts on the muscular fibres of the muscular coats in such a way that its action is the greatest where that histological element is most abundant.* We have seen, in fact, that the action of quinine on the circulation, in order of importance, is first on the heart, then on the medium sized arteries, and last on those of smaller calibre. The great arterial trunks feel only the hydraulic results of the action of the heart.

5. *We can obtain a dilatation of the vessels, even after being compelled to admit that it is active in the true sense of the word.* We have indeed admitted, as was said before, that the dilation of the vessels consequent on excitation of the dilator nerves may include paralysis of the vaso-constrictors, but our experiments, while confirming the general physiological law that the nerve acts always on the muscles and never on other nerves, have

demonstrated that we can have a primary and active dilatation of the vessels in the true sense of the word.—(*Gaz. Hœbdomadaire*)—*Bull. Gen. de Therap.*, Aug. 15 —*Chicago Journal N. & M. Diseases*.

Editorial.

Our readers will observe, on the title page of the JOURNAL, the name of D. V. Dean, M. D. (our late city chemist), as associate editor. The Doctor has been elected to this position by the unanimous vote of the St. Louis Medical Press Association; he is known to the Profession as a ripe scholar, of a dozen or more years experience in the practice of medicine; an original worker with the *test-tube* and *microscope*, hence fitted to aid materially in keeping the JOURNAL abreast with the progress of the medical sciences.

We embrace this occasion to make grateful acknowledgment to the patrons of the JOURNAL, for their timely and valued contributions to its pages during the past year, and to solicit their continued favor and coöperation in its future.

E.

Mortality Report.—City of St. Louis.

FROM NOV. 20, 1875, TO DEC. 31, 1875, INCLUS.

Measles.....32	Cancer.....1	Asthma.....5	Inflam. of the Brain.....1
Scarlatina.....61	Anæmia.....1	Cynanche trachealis.....2	Premature Birth.....19
Varicella.....28	Rheumatism.....2	Laryngitis.....9	Abscess of Lip.....1
Varicellid.....2	Marasmus.....30	Bronchitis.....48	General Debility.....13
Diphtheria.....34	Scrofula.....3	Pneumonitis.....80	Infantile Catarrh.....1
Croup, membranous.....17	Phthisis Pulmonalis.....66	Pleuritis.....2	Eczema.....1
Tonsillitis.....2	Hydrocephalus.....4	Hydrothorax.....1	Puerperal Mania.....1
Whooping Cough.....1	Lumbar Abscess.....1	Empyema.....1	Puerperal Peritonitis.....2
Erysipelas.....5	Meningitis.....15	Congestion of Lungs.....7	Puerperal Convulsions.....2
Typhoid Fever.....13	Apoplexy.....4	Edema of Lungs.....1	Puerperal Fever.....3
Intermittent Fever.....2	Softening of Brain.....3	Gastritis.....6	Miscarriage.....1
Remittent Fever.....1	Epilepsy.....2	Enteritis.....6	Albuminuria.....5
Typho-malarial Fever.....2	Convulsions (Infantile).....31	Peritonitis.....3	Senile Debility.....4
Congestive Fever.....4	Ascites.....5	Senile Gangrene.....2	Atrophy.....1
Congestive Chills.....7	Paralysis, General.....7	Intussusception of Intestines.....2	Fracture of skull.....1
Hectic Fever.....3	Paraplegia.....1	Hernia of Umbilicus.....2	Cyanosis Card.....1
Pneumia.....3	Tetanus.....3	Ulceration stomach.....1	Wound, gunshot.....2
Septicæmia.....7	Tetanus (traumatic).....3	Clonic.....1	Poisoned by Opium.....3
Diarrhœa.....7	Trismus Nascentium.....14	Cirrhosis of Liver.....4	Morphine.....1
Dysentery.....10	Cong. Brain.....15	Hepatitis.....5	Asphyxia.....1
Enterocolitis.....1	Disease of Brain.....2	Congestion of bowels.....1	Run over by cars.....2
Cerebro-spinal Meningitis.....6	Phrenitis.....1	Perforation of bowels.....1	Injured by fall.....2
Morbus Motosus.....1	Inflam. of Brain.....2	Constriction of bowels.....1	Stabbed.....1
Putrefaction.....1	Anæremia.....1	Nephritis.....1	Suicide by hanging.....2
Imitation.....8	Pericarditis.....3	Nephra — Bright's Disease.....3	Total Deaths.....773
Intemperance.....3	Valvular disease of heart.....7	Uremia.....2	Under 5 years.....371
Cancer of Breast.....1	Dropsy (General).....11	Abscess of Neck.....1	Still Births.....55
Cancer of Womb.....1	Epistaxis.....1	Spina Bifida.....1	
Cancer of Uterus.....2	Heart Disease (Organic).....4	Abscess of Liver.....3	
Cancer of Ventricle.....3	Ganic.....4	Dentition.....1	
Cancer of Scalp.....1			

Meteorological Observations.

METEOROLOGICAL OBSERVATIONS AT ST. LOUIS, MO.

By A. WISLIZENUS, M. D.

The following observations of daily temperature in St. Louis are made, with a MAXIMUM and MINIMUM thermometer (of Green, N. Y.). The daily minimum occurs generally in the night, the maximum about 3 p. M. The monthly mean of the daily minima and maxima, added and divided by 2, gives a quite reliable mean of the monthly temperature.

THERMOMETER FAHRENHEIT.

NOVEMBER, 1875.

Day of Month.	Minimum.	Maximum.	Day of Month.	Minimum.	Maximum.
1	40.5	71.0	18	32.5	51.0
2	40.5	58.5	19	41.5	49.0
3	50.0	55.0	20	42.0	55.0
4	41.5	47.0	21	22.0	33.5
5	37.0	52.0	22	23.0	39.5
6	34.0	55.0	23	35.5	47.0
7	37.0	58.0	24	23.0	38.0
8	38.0	57.5	25	24.0	43.0
9	44.5	48.0	26	40.0	45.5
10	32.0	51.0	27	27.5	41.5
11	36.0	64.0	28	37.0	45.5
12	45.0	95.0	29	16.0	24.0
13	41.0	43.0	30	17.5	33.0
14	38.0	43.0	31	—	—
15	37.0	50.0	Mean	34.1	47.7
16	28.0	35.5	Monthly Mean	40.9	—
17	20.0	35.0			

Quantity of rain : 0.69 inch.

DECEMBER, 1875.

Day of Month.	Minimum.	Maximum.	Day of Month.	Minimum.	Maximum.
1	28.5	49.0	18	11.0	31.5
2	35.5	50.5	19	23.0	40.0
3	48.0	58.0	20	37.0	55.5
4	51.5	56.0	21	40.0	37.5
5	49.5	53.0	22	47.5	58.5
6	48.0	53.5	23	52.5	60.0
7	32.5	33.0	24	56.5	66.0
8	20.0	20.0	25	37.0	46.0
9	24.5	34.5	26	33.0	62.0
10	28.5	41.0	27	25.0	39.0
11	29.5	37.5	28	20.0	42.5
12	26.5	52.0	29	39.5	55.0
13	33.0	43.0	30	45.0	64.0
14	30.5	44.0	31	60.0	72.5
15	37.0	54.5	Mean	32.2	48.4
16	33.5	42.0	Monthly Mean	40.3	—
17	1.0	13.0			

Quantity of rain and snow : 2.41 inches.

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Are made from the choicest selected materials by saturation and pressure, without the employment of HEAT OR GLYCERINE—both of which are highly objectionable, heat impairing the quality, and glycerine ~~retards the action of all vegetable~~



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N. B.—Accept no substitute.

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NOVEMBER, 1875.

Day of Month.	Minimum.	Maximum.	Day of Month.	Minimum.	Maximum.
1	40.5	71.0	18	32.5	51.0
2	40.5	58.5	19	41.5	49.0
3	50.0	55.0	20	42.0	55.0
4	44.5	47.0	21	22.0	33.5
5	37.0	52.0	22	23.0	30.5
6	34.0	55.0	23	35.5	47.0
7	37.0	58.0	24	23.0	38.0

QUININE

CAN BE TAKEN WITHOUT TASTE

BY USING

QUININE ELIXIR.

This Elixir is neutral, medicinally, with the exception of slight tonic properties, and does not affect the medicinal properties of Quinine in the least, on the contrary, Quinine taken in this way is considered one third more efficient than in pill, and is just the same as when taken in crystal or solution.

The only *pleasant* way in which Quinine can be given to ladies, children and convalescents. Prepared by

ALLAIRE, WOODWARD & CO, Manf. Chemists,
PEORIA, ILLS.

May be obtained of the Drug Trade generally. St. Louis office, 111 Pine St.

1	28.5	49.0	18	11.0	31.5
2	35.5	50.5	19	23.0	40.0
3	48.0	58.0	20	37.0	55.5
4	51.5	50.0	21	49.0	57.5
5	49.5	53.0	22	47.5	58.5
6	48.0	53.5	23	52.5	60.0
7	32.5	33.0	24	50.5	60.0
8	20.0	20.0	25	37.0	46.0
9	24.5	34.5	26	33.0	62.0
10	28.5	41.0	27	25.0	30.0
11	20.5	37.5	28	20.0	42.5
12	20.5	52.0	29	30.5	55.0
13	33.0	43.0	30	45.0	64.0
14	30.5	44.0	31	60.0	72.5
15	37.0	54.5			
16	33.5	42.0	Mean	32.2	48.4
17	10	13.0	Monthly Mean	40.3	

Quantity of rain and snow: 2.41 inches.

HAYDEN'S

Cold Fluid Extracts

—AND—

SATURATES,

Are made from the choicest selected materials by saturation and pressure, without the employment of HEAT OR GLYCERINE—both of which are highly objectionable, heat impairing the quality, and glycerine retarding the action of all vegetable medicines. These Fluid Extracts are made expressly for physicians' prescriptions, and will be found of the first quality in all cases; being freed from starch, gum, mucilage, and inert extractive matter they make an

ELEGANT PRESCRIPTION.

Hayden's Saturates

Are of the same strength as the Fluid Extracts, but are always made from the fresh green article, hence are *certain* to contain the virtues of the article in a much higher degree than in the dry or any other form. Write for Hayden's Cold Fluid Extracts or Saturates, as may be required.

DISPENSED BY ALL DRUGGISTS.

N. B.—Accept no substitute.

CINCHO-QUININE.

Chin. Quin. is the most important compound of Quinine. It is the only one of the Quinine salts which is soluble in water, and it is the only one which is not acted upon by the acids, and it is the only one which is not acted upon by the alkalis. It is the only one which is not acted upon by the acids, and it is the only one which is not acted upon by the alkalis. It is the only one which is not acted upon by the acids, and it is the only one which is not acted upon by the alkalis.

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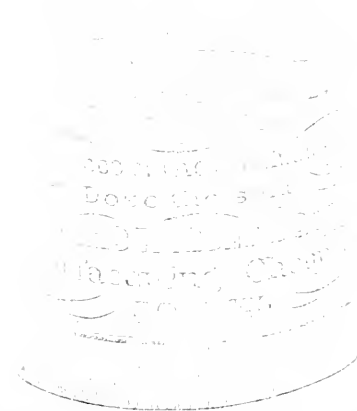
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We can now supply SUGAR-COATED CINCHO-QUININE PILLS of three sizes, namely, 1 grain, 2 grains, and 4 grains, in such quantities as are wanted. They are placed in vial-holding 100 each. The price is about one-half that of Quinine Pills. Dose: the same.

BILLINGS, CLAPP & CO.

Successors to JAMES R. NICHOLS & Co.

Manufacturing Chemists,
BOSTON, MASS.

Manufacturers of Acids, Chloroform, Ethers, Preparations of Gold, Silver, Tin, Zinc, Lead, Iron, Bismuth, and all Fine Chemicals used in Medicine or the Arts.

School Requisites Published by E. F. Hobart & Co.

HOBART'S HELPS TO SCHOOL MANAGEMENT.

SERIES 1

Each box contains 500 checks of one credit, 125 tickets of five credits, 75 tickets of twenty-five credits, 20 elegant reward cards, and 5 beautiful chromos. Price of set complete. \$1 50

SERIES 2.

Contains the same one credit, five credit and twenty-five credit tickets as the above, and 40 fine chromos of Landscapes, Figures and Flowers, mounted on card board, 4x5½ inches, the reverse of each chromo bearing a certificate for 100 credits. Price of set...\$2 50

SERIES 3.

Contains the same credit tickets as series 1 and 2, and 40 chromos of Landscapes, Figures and Flowers, with Certificate of Fifty Credits, and also 12 large Chromos of Landscapes, mounted on card board 9x11 inches, with Certificate of One Hundred Credits.

Price of set complete.....\$5 00

Additional Checks of one credit, per 100.....	10
Tickets of five credits, per 100.....	25
Tickets of twenty-five credits, per 100.....	75
Chromos, 4x5½ inches, with 100 credit certificate, per dozen.....	50
Chromos, same size, with 50 ".....	50

HOBART'S REWARD CARDS.

Reward Cards, in colors:

No. 1, per package.....	05
No. 2, per package.....	10
No. 3, per package.....	10
No. 4, per package.....	12½

Reward Cards, in colors with embossed ornaments:

No. 5, per package.....	15
No. 6, ".....	15
No. 7, ".....	15

Gold Reward Cards, printed in gold, and embellished with fine chromo vignettes, 10 cards in a package:

No. 9, (Butterflies) per package.....	15	No. 17, (Landscapes) per package.....	25
No. 10, (Cupids) ".....	20	No. 20, (Children) ".....	30
No. 11, (Birds) ".....	20	No. 21, (Children) ".....	40
No. 12, (Flowers) ".....	20	No. 22, (Oriental Birds) ".....	40
No. 13, (Children) ".....	25	No. 23, (Landscapes) ".....	40
No. 15, (Children) ".....	25	No. 24, (The Lord's Prayer) per package.....	75
No. 16, (Flowers) ".....	25		

LARGE CHROMO REWARDS, MOUNTED ON CARD BOARD, 4x5½ INCHES.

No. 25, (Landscapes) per doz.....	50	No. 29, (Figures in Costume) per doz.....	50
No. 26, (Figures) ".....	50	No. 30, (Fairies and Flowers) ".....	50
No. 27, (Birds) ".....	50	No. 31, (Guardian Angels) ".....	50
No. 28, (Flowers) ".....	50	No. 32, (Figures, half lengths) ".....	50
No. 36, Landscapes, Flowers, etc, mounted on cardboard, 5½x7 inches per doz.....	\$1 00		
No. 38, Animals, Flowers, &c., on board, 7x9 inches per doz.....	2 00		
No. 40, Large Chromos, mounted on heavy card board, 9x11 inches, including Fine Landscapes and other subjects, per doz.....	\$3 00		

Teacher's Daily Register, size 1.....	4 00
" " " size 2.....	2 00
" " " size 3.....	1 00
Teacher's Class Book.....	75
Pocket Class Book.....	30
District Record Book.....	4 00
District Order Book on Teacher's Fund.....	1 00
District Order Book on Incidental and Building Funds.....	1 00
Package of District Blanks.....	1 00
Monthly Reports, No. 1, (A) with printed list of Common School studies, per 100.....	50
Monthly Reports, No. 1, (B) same studies, also Algebra and Physiology.....	50
Monthly Reports, No. 1, (C) with larger number of studies.....	50
Monthly Reports, No. 3, with one line only for Scholarship.....	50
Monthly Reports, No. 4, old form, with full list of studies.....	1 50
School Diary, per doz.....	1 20
School Mottoes, 20 in set, per set.....	1 00
Illinois Monthly Schedule, per quire.....	75
Illinois Quarterly Schedule, per quire.....	1 25
Class Card, per 100.....	50
Teachers' Institute Certificates, per 100.....	2 00

Sent by mail, prepaid, on receipt of price.

E. F. HOBART & CO, 615 Chestnut Street, St. Louis.

ANIMAL VACCINE VIRUS.

(BOVINE VIRUS.)

Freshly prepared every week, taken from selected heifers, at the Pennsylvania Vaccine Farm, conducted by Dr. B. Rush Senseny.

This extensive establishment has been especially fitted up for the purpose of supplying pure, fresh bovine virus in any quantity. This virus is from the celebrated Beaugency stock, imported expressly, and has never passed through the human subject. It is *safer*, and more *efficient* than humanized virus: is free from all contamination, and is now recommended by the best authorities on vaccination. A circular, with full explanations, sent with each package, or on application, *gratis*.

PRICES.

Ivory points, charged, per dozen.	\$1.50
Quill slips, each, charged,	25
or five for \$1.00	
Whole quills, each,	50
Lymph tubes, each,	2.00
Crusts, each,	\$2.00 to 3.00
according to size.	

Local agents and large orders supplied at special rates.

Orders carefully put up, and mailed promptly. For amounts less than \$10.00 the price should be remitted. Large orders sent by express, C. O. D., if desired.

The exclusive sale of this virus has been entrusted to the Philadelphia agency.

Address all orders to

PENNSYLVANIA VACCINE AGENCY,

115 SOUTH SEVENTH STREET, PHILADELPHIA.

The Weekly Medical and Surgical Reporter.

THE HALF-YEARLY COMPENDIUM OF MEDICAL SCIENCE.

The Physician's Daily Pocket Record and Visiting List.

The publications whose titles are given above merit the attention of all physicians who would keep abreast of the literature of the profession.

THE REPORTER

Is published every Saturday, in pamphlet form, neatly bound and cut. It contains twenty to twenty-four large, double-columned pages of reading matter, printed on fine paper, in clear and new type.

The REPORTER ranks among its contributors many of the most eminent practitioners and surgeons of the United States. Not to go beyond the numbers for the first volume of the current year, we find among their names those of Professors D. H. AGNEW, J. M. DA COSTA, W. W. DAWSON, A. HEWSON, A. JACOBI, R. J. LEVIS, W. PEPPER, L. A. SAYRE, J. S. WIGHT, J. R. WOOD, Drs. J. SOLIS COHEN, A. M. HAMILTON, S. WEIR MITCHELL, L. TURNBULL, and numerous others.

The REPORTER aims especially to be a *practical* journal, and gives its chief attention, therefore, to the diagnosis and treatment of disease.

THE COMPENDIUM

Forms a volume of three hundred large octavo pages. It appears on the first of January and July. It covers the whole ground of Medical Science, distributed under the following headings:—I. Anatomy, Physiology, and Pathology. II. Physics, Botany, Chemistry, and Toxicology. III. Materia Medica and Therapeutics. IV. General Medicine and Sanitary Science. V. Clinical Medicine. VI. Obstetrics and Diseases of Women and Children. VII. Surgery.

No article appears in both the REPORTER and COMPENDIUM. None is duplicated in these two journals. The latter is intended to supplement and complete the former in the departments of medicine which are less immediately practical.

THE PHYSICIAN'S POCKET RECORD

Is a visiting list and memorandum book. It is the neatest, cheapest, and most comprehensive book of its kind published, and the only one *good at any time for any year from date*. This feature is owing to its "perpetual almanac" arrangement. Its contents are—1. List of New Remedies. 2. Classified List of Medicines, with Dose and Price. 3. Poisons and Antidotes. 4. Disinfectants. 5. Decimal Tables, etc., etc.

REGULAR RATES.

MEDICAL AND SURGICAL REPORTER (weekly),	per annum, <i>in advance</i>	\$5 00
COMPENDIUM OF MEDICAL SCIENCE (half-yearly),	"	3 00
REPORTER AND COMPENDIUM together, one year,		7 00
PHYSICIAN'S DAILY POCKET RECORD (visiting List, etc.),	35 patients weekly	1 50
* * * REPORTER, COMPENDIUM, and POCKET RECORD for 35 patients, together, for one year,		

ONLY \$8.25.

In view of the new year, we announce the following

SPECIAL RATES AND PREMIUMS.

From now until January 1, 1877, the REPORTER will be sent for \$5.00.

Any present subscriber to the REPORTER who obtains for us another subscriber, and renits for both, will receive a Pocket Record, with name stamped on back, *gratis*.

Any present subscriber who obtains for us two new subscribers, and renits for the three, will receive a copy of the new edition of Naphey's *Modern Therapeutics* (new edition, \$1.00, ready January 1st).

A specimen copy of the COMPENDIUM (January, 1875) will be sent for 50 cts.

A specimen copy of the REPORTER will be sent on application, *gratis*.

Any one can have the REPORTER on trial for three months for \$1.00.

WE ASK PHYSICIANS TO TRY THESE PUBLICATIONS FOR ONE YEAR, convinced they will not regret it.

Address all letters and make all checks, etc., payable to

D. G. BRINTON, M. D.,
115 South Seventh Street, Philadelphia.

TO THE MEDICAL PROFESSION.

A NEW AND IMPORTANT REMEDY.

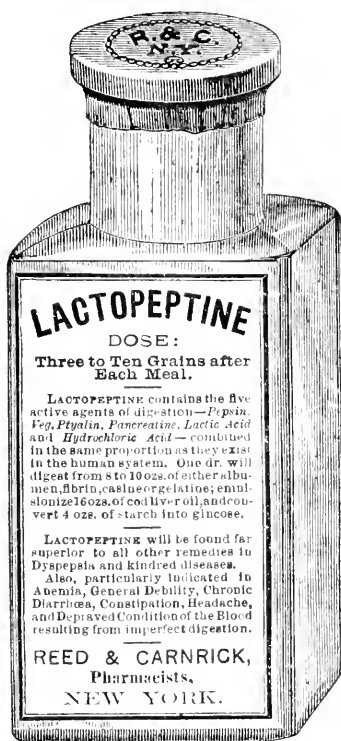
LACTOPEPTINE.

LACTOPEPTINE contains all the agents of digestion that act upon food, from mastication to its conversion into chyle, and is therefore the most important remedy for Dyspepsia that has ever been produced.

The digestive power of LACTOPEPTINE is seven times greater than any preparation of Pepsin in the market, as it has the important advantage of dissolving all aliment used by mankind, while Pepsin acts only upon plastic food.

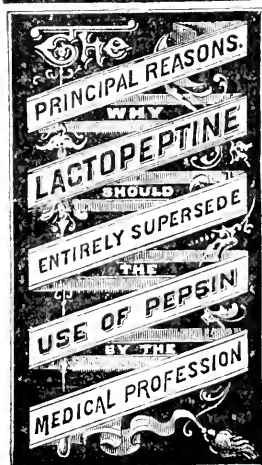
This preparation has now been in the hands of the Medical Profession for two years, during which time its therapeutic value has been most thoroughly established in cases of Dyspepsia, Intestinal diseases of Children, Chronic Diarrhoea, Constipation, Vomiting in Pregnancy or Dyspepsia, Headache, and all diseases arising from imperfect nutrition.

One of the most important applications of LACTOPEPTINE is in those cases where the digestive organs are unable, from debility, to properly prepare for assimilation the remedies indicated. In such cases combine it with the remedy indicated.



LACTOPEPTINE, as well as all other preparations of our manufacture, is prepared strictly for the use of the Medical Profession, and is kept invariably in their hands.

FORMULA OF LACTOPEPTINE.	
Sugar of Milk,	20 Ounces.
Pepsin,	4 "
Pancreatine,	3 "
Powder and M.C.	
Veg. Phytin or Diastase,	1 Drachm.
Lactic Acid,	2 1/2 fl. Drachms.
Hydrochloric Acid,	2 1/2 fl. "



- 1st.—It will digest from three to four times more coagulated albumen than any preparation of Pepsin in the market.
- 2d.—It will emulsify and prepare for assimilation the oily and fatty portions of food, Pepsin having no action upon this important alimentary article.
- 3d.—It will change the starchy portions of vegetable food into the assimilable form of glucose.
- 4th.—It contains the natural acids secreted by the stomach (Lactic and Hydrochloric), without which Pepsin and Pancreatine will not change the character of coagulated albumen.
- 5th.—Experiments will readily show that the digestive power of the ingredients of Lactopeptine, when two or more are combined, is much greater than when separated. Thus, 4 grs. of Pepsin and 4 grs. of Pancreatine mixed, will dissolve one third more albumen than the combined digestive power of each agent separately in same length of time.
- 6th.—It is MUCH LESS EXPENSIVE TO PRESCRIBE. It dissolves nearly four times as much coagulated albumen as Pepsin, besides digesting all other food taken by the human stomach. An ounce of Lactopeptine is, therefore, fully equal in digestive power to seven ounces of Pepsin, yet it is furnished at about the same price.

All the Statements made in this Circular are the result of repeated and careful experiments.

The palatability and digestive power of LACTOPEPTINE has been more than doubled during the past two months, by producing several of its component parts free from all extraneous matter, and we now believe it is not susceptible of any further improvement.

Physicians who have not given LACTOPEPTINE a trial in their practice, are respectfully requested to read the following opinions of some of our leading Practitioners as to its merits as an important remedial agent.

IN ADDITION TO THE FOLLOWING RECOMMENDATIONS, WE HAVE RECEIVED OVER SEVEN HUNDRED COMMENDATORY LETTERS FROM PHYSICIANS, A LARGE NUMBER OF WHICH ENUMERATE CASES WHERE PEPSIN ALONE HAD FAILED TO BENEFIT, BUT FINALLY HAD BEEN TREATED SUCCESSFULLY WITH LACTOPEPTINE.

The undersigned, having tested REED & CARNRICK'S preparation of Pepsin, Pancreatine, Diastase, Lactic Acid and Hydrochloric Acid, made according to published formula, and called *Lactopeptine*, find that in those diseases of the stomach where the above remedies are indicated, it has proven itself a desirable, useful and well adapted addition to the usual pharmaceutical preparations, and therefore recommend it to the profession.

NEW YORK, April 6th, 1875.

J. R. LEAMING, M. D.,

Attending Physician at St. Luke's Hospital.

ALFRED L. LOOMIS, M. D.,

Professor of Pathology and Practice of Medicine, University of the City of New York.

JOSEPH KAMMERER, M. D.,

Clinical Professor of Diseases of Women and Children, University of the City of New York.

LEWIS A. SAYRE, M. D.,

Professor of Orthopaedic Surgery and Clinical Surgery, Bellevue Hospital Medical College.

EDWARD G. JANEWAY, M. D.,

Professor Pathological and Practical Anatomy, and Lecturer on Materia Medica and Therapeutics, and Clinical Medicine.

SAMUEL R. PERCY, M. D.,

Professor Materia Medica, New York Medical College.

J. H. TYNDALL, M. D.,

Physician at St. Francis' Hospital.

JOSEPH E. WINTERS, M. D.,

House Physician Bellevue Hospital.

GEO. F. BATES, M. D.,

House Surgeon Bellevue Hospital.

INEBRIATE ASYLUM, NEW YORK, March 25th, 1875.

I have carefully watched the effects of *LACTOPEPTINE*, as exhibited in this institution, for about six months, especially in the treatment of Gastritis, and it gives me pleasure to be able to say that I have found the best results from it, supplying as it does an abnormal void of nature in the secretions of the stomach.

N. KEELER MORTON, M. D.

BRANDON, VT., March 31st, 1875.

I desire to say that I have used *LACTOPEPTINE* for a year, not only on my friends, but also in my own case, and have found it one of the most valuable aids to digestion that I have ever used.

A. T. WOODWARD, M. D.,
Late Professor of Obstetrics and Diseases of Women and Children,
Vermont Med. College.

EXTRACT FROM A REPORT UPON THE USES OF LACTOPEPTINE,
BY J. KING MERRITT, M. D., FLUSHING, L. I.

About six months since I saw a notice of *LACTOPEPTINE* and its analysis in a Medical Journal, and having long ago recognized the inability of Pepsin to reach those cases in which the several processes of digestion are all more or less involved, I immediately commenced the use of *LACTOPEPTINE* in my own case. This was, in brief, an inherited, fostered, and persistent condition of General Dyspepsia, which I had treated for several years with Pepsin, finding in its use good service, although the general results were discouraging.

A large proportion of diseases are the result of imperfect digestion.

In all cases when the stomach is unable to digest and appropriate the remedies indicated, they should be combined with Lactopeptine.

The effect of *LACTOPEPTINE* on my powers of digestion has far surpassed my expectations, and its remedial qualities in numerous cases, more or less complicated, have been all that I could desire. In these cases *LACTOPEPTINE* was associated with other remedies indicated, for the purpose of facilitating their assimilation, which is so often nullified by a disordered and debilitated condition of the digestive organs.*

I will now give, in brief, an epitome of a case recovering under the use of *LACTOPEPTINE*. She was a married lady, who five years ago became afflicted with diarrhoea, which had baffled every mode of intelligent treatment. She had an intestinal flux, body much emaciated, and her entire health was greatly impaired. I treated her with *LACTOPEPTINE*, in conjunction with other remedies, many of which had been formerly used without avail. She is now rapidly recovering.

I shall only add that the more my experience, in its varied applicability, extends, the more its beneficial effects appear.

—○—
NEWTON, IOWA, May 19th, 1875.

I have been using *LACTOPEPTINE* for several months, and after a careful trial in stomach and bowel troubles, find that it has no equal. In all cases of indigestion and lack of assimilation, it is a most splendid remedy.

H. E. HUNTER, M. D.

—○—
WEST NEWFIELD, ME., June 14th, 1875.

LACTOPEPTINE seems to be all that it is recommended to be. It excels all remedies that I have tried in aiding a debilitated stomach to perform its functions.

STEPHEN ADAMS, M. D.

—○—
WOLCOTT, WAYNE CO., N. Y., June 29th, 1875.

From the experience I have had with *LACTOPEPTINE*, I am of the opinion that you have produced a remedy which is capable of fulfilling an important indication in a greater variety of diseases than any medicine I have met with in a practice of over 45 years.

JAMES M. WILSON, M. D.

—○—
BROWNVILLE, N. Y., August 3d, 1875.

Some time since I received a small package of *LACTOPEPTINE*, which I have used in a case of long standing Dyspepsia. The subject is a man 40 years of age; has had this ailment over 10 years. I never had so bad a case before, and I have been practicing medicine 21 years. Your *LACTOPEPTINE* seems just the remedy he needs. He is improving finely, and can now eat nearly any kind of food without distress. I have several cases I shall take hold of as soon as I can obtain the medicine.

W. W. GOODWIN, M. D.

—○—
EDDYVILLE, WAPELLO CO., IOWA, May 5th, 1875.

I have used the *LACTOPEPTINE* in my practice for the last eighteen months, and find it to be one of our great remedies in all diseases of the stomach and bowels. I was called last fall to see a child three years old, that was almost in the last struggles of death with Cholera Infantum. I ordered it teaspoonful doses of Syrup of Lactopeptine, and in a few days the child was well. I could not practice without it.

F. C. CORNELL, M. D.

—○—
CORTLAND, DE KALB CO., ILL., August 12th, 1875.

I received recently a small package of *LACTOPEPTINE* with the request that I should try it in a severe case of Dyspepsia. I selected a case of a lady who has been a sufferer over 30 years. She reported relief after the first dose, and now, after using the balance of the package in doses of three grains, three times daily, says she has received more benefit from it than from any other remedy she had ever tried.

G. W. LEWIS, M. D.

* We desire particularly to call the attention of the Profession to the great value of *LACTOPEPTINE* when used in conjunction with other remedies, especially in those cases in which the digestive organs are unable, from debility, to properly prepare for assimilation the remedies indicated.

One drachm of Lactopeptine will digest ten ounces of Coagulated Albumen, while the same quantity of any standard preparation of Pepsin in the market will dissolve but three ounces.

One drachm of Lactopeptine dissolved in four fluid drachms of water will emulsionize sixteen ounces of Cod Liver Oil.

CHILLICOTHE, Mo., September 4th, 1874.

I have used *LACTOPEPTINE* this summer with good effect in all cases of weak and imperfect digestion, especially in children during the period of dentition, cholera infantum, &c. I regard it, decidedly, as being the best combination containing Pepsin that I have ever used.

J. A. MUNK, M. D.

—○—
FORT DODGE, IOWA, November 15th, 1874.

I have fairly tried, during the past summer and fall, your *LACTOPEPTINE*, and consider it a most useful addition to the list of practical remedies. I have found it especially valuable in the *gastro-intestinal* diseases of children.

W. L. NICHOLSON, M. D.

—○—
WHITE HALL, VA., January 4th, 1875.

A short time since I sent for some of your *LACTOPEPTINE*, which I used in the case of a lady who had been suffering with dyspepsia for over twelve months, and who had taken Pepsin, and other remedies usually prescribed in that disease, with very little benefit. I ordered the *LACTOPEPTINE*, and was pleased to find a decided improvement after a few days, which has steadily increased. At the present time she appears to have entirely recovered.

Very truly,

E. B. SMOKE, M. D.

—○—
INDIANOLA, IOWA, December 11th, 1874.

I consider the *LACTOPEPTINE* a heaven-sent remedy for all digestive troubles. I gave it to a lady troubled with exhaustive nausea and vomiting from pregnancy, with immediate and perfect relief, after all other remedies had failed. She was almost in *articulo mortis*. The third day after taking the *LACTOPEPTINE* she was able to be up. I was called in council the other day to a case of Intussusception; the patient was vomiting stercoracious matter; had retained no nutrition for several days. I gave the *LACTOPEPTINE* with immediate relief. Ingestion was retained. I relieved the bowels by inflation, got an operation, and the patient will recover. I consider the *LACTOPEPTINE* was his *sheel anchor*. I am now using the *LACTOPEPTINE* in Cancer of the Stomach—the only medicine that gives the patient any relief. It seems to act as an anodyne in his case more so than morphine.

C. W. DAVIS, M. D.

—○—
CONTOCOOK, N. H., November 25th, 1874.

After a thorough trial, I believe *LACTOPEPTINE* to be one of the most important of the new remedies that have been brought to the attention of physicians during the last ten years. I have used it in several cases of vomiting of food from dyspepsia, and in the vomiting from pregnancy, with the best of success. The relief has been immediate in every instance. In some of the worst cases of Cardialgia, heretofore resisting all other treatment, *LACTOPEPTINE* invariably gave immediate relief. It has accomplished more in my hands, than any other remedy of its class I ever met with, and I believe no physician can safely be without it. It takes the place of Pepsin, is more certain in its results, and is received by patients of all ages without complaint, being a most pleasant remedy. I have used *LACTOPEPTINE* in my own case, having been troubled with feelings of weight in the stomach and distress after eating, but always have obtained immediate relief upon taking the elixir in teaspoonful doses.

GEORGE C. BLAISDELL, M. D.

—○—
MO. VALLEY, IOWA, November 12th, 1874.

Some months since I saw in a medical journal a notice of your *LACTOPEPTINE*. Having in charge a patient in whose case I thought it was indicated. I prescribed it in 5 gr. doses. He used it about a week and was greatly benefited. I failed to procure more just then, so I gave him Pepsin instead, the patient thinking it to be the same prescription. After two days he returned to my office, saying that "the last medicine didn't hit the spot, but that which you gave me last week was just the thing, and has given me more relief than any medicine I have ever taken." I consider this a fair test (so far as it goes) of the merits of this new, and I think, invaluable remedy.

G. W. COIT, M. D.

One drachm of Lactopeptine will transform four ounces of Starch into Glucose.

Pancreatine and Diastase are more important digestive agents than Pepsin.

COMMUNICATIONS FROM MEDICAL JOURNALS.

We have for several months been prescribing various preparations of medicine containing *LACTOPEPTINE* as an important aid to digestion. It may be advantageously combined with cod liver oil, calisaya, iron, bismuth, quinine and strychnia. *LACTOPEPTINE* is composed of pepsin, ptyalin, pancreatine, lactic acid and hydrochloric acid—pepsin, lactic and hydrochloric acids being in the gastric juice, ptyalin in the saliva, and pancreatine emulsifying fatty substances. The theory of its action being rational, we have prescribed the various preparations referred to above with more evidence of benefit than we ever observed from pepsin.—*St. Louis Medical and Surgical Journal*, September, 1874.

AN ARTICLE ON LACTOPEPTINE, BY LAURENCE ALEXANDER, M. D., OF YORKVILLE, S. C., IN THE *ATLANTA MEDICAL AND SURGICAL JOURNAL*, NOVEMBER, 1874.

Some time ago a small box, labelled "Physicians' Samples *LACTOPEPTINE*," was placed in my hands, with the request that I would give it a trial upon some one suffering from dyspepsia. Having, like other physicians, a large *per centum* of just such cases always on hand, in which various medicines and remedies had been used without success, I gladly consented, hoping that something had really been found at last to supply the want felt by every practitioner in the treatment of this troublesome complaint. After several months' experience in the use of this preparation, in which it has been thoroughly tested upon a large number of patients with such gratifying results, I am induced to recommend it to the consideration of the profession, feeling confident that, with due care in their diagnosis, and the many little cautions always necessary, such as restricting the excessive use of fluids while eating, etc., and a little patience on the part of the sufferer, its good effects will be seen beyond a doubt.

While I employ it extensively in many deranged conditions of the bowels incident to infancy and childhood, I find it equally efficacious in constipation and all diseases arising from imperfect nutrition in the adult. In sickness of pregnancy it answers well, far exceeding, in my hands, oxalate of cerium, extract lupulin, or the drop doses of carbohc acid, so highly extolled by some practitioners. In its combination with iron, quinine and strychnia, we have the advantage of using, in cases of great nervous depression and debility peculiar to the dyspeptic, our most valuable agent in a truly elegant form.

TO TEST THE DIGESTIVE POWER OF LACTOPEPTINE IN COMPARISON WITH ANY PREPARATION OF PEPSIN IN THE MARKET.

To five fluid ounces of water add one drachm of Lactopeptine, half drachm of Hydrochloric Acid, 10 ounces Coagulated Albumen, allowing it to remain from two to six hours at a temperature of 105 deg., agitating it occasionally.

Lactopeptine is prepared in the form of Powder, Sugar Coated Pills, Elixir, Syrup, Wine and Troches.

LACTOPEPTINE is also combined with the following preparations:

EMULSION OF COD LIVER OIL WITH LACTOPEPTINE.

This combination will be found superior to all other forms of Cod Liver Oil in affections of the Lungs and other wasting diseases. Used in Coughs, Colds, Consumption, Rickets, Constipation, Skin Diseases and Loss of Appetite.

The Oil in this preparation being partly digested before taken, will usually agree with the most debilitated stomach. Although we manufacture seven other preparations of Cod Liver Oil, we would recommend the above as being superior to either of them. It is very pleasant to administer, compared with the plain Oil, and will be readily taken by children.

EMULSION OF COD LIVER OIL WITH LACTOPEPTINE AND LIME.

Each ounce of the Emulsion contains 16 grs. Lactopeptine and 16 grs. Phosphate Lime.

ELIXIR LACTOPEPTINE.

The above preparation is admirably adapted in those cases where Physicians desire to prescribe Lactopeptine in its most elegant form.

REED & CARRICK manufacture a Full Line of Fluid Extracts.

REED & CARNRICK manufacture a Full Line of Sugar Coated Pills.

BEEF, IRON AND WINE WITH LACTOPEPTINE.

In those debilitated dyspeptic cases when an Iron Tonic, combined with the strengthening properties of Extract of Beef and Wine are indicated, this preparation will be found most efficacious.

ELIXIR PHOSPHATE OF IRON, QUININE AND STRYCHNIA WITH LACTOPEPTINE.

There can be no combination more suitable than the above in cases of Nervous and General Debility, attended with Dyspepsia.

ELIXIR LACTOPEPTINE, STRYCHNIA AND BISMUTH.

A valuable combination in cases of Dyspepsia, attended with nervous debility.

ELIXIR GENTIAN AND CHLORIDE OF IRON WITH LACTOPEPTINE.

An elegant and reliable remedy in cases of Dyspepsia attended with General Debility.

SYRUP LACTOPEPTINE COMP.

Each ounce contains 24 grains Lactopeptine, 8 grains Phosphate of Iron, 8 grains Phosphate Lime, 8 grains Phosphate Soda, and 8 grains Phosphate Potash.

This preparation will be found well suited to cases of General Debility, arising from impaired digestion, and also of great value in Pulmonary Affections.

FORMULÆ.

The following valuable formulae have been contributed by J. KING MERRITT, M. D., who has used them with great success in his practice:

No. 1.—FOR INTERMITTENT FEVER WITH CONGESTION OF LIVER.

\mathcal{R}	Liquid Lactopeptine,	dr. vi.
	Fl. Ex. Cinchona Comp.,	dr. i.
	Fl. Ex. Taraxacum,	
	Tinct. Zingiber,	aa dr. iii.
	Hydrochloric Acid Dilut.,	dr. i.
	Spts. Lavender Comp.,	dr. ii.
	Sulphate Quinia,	grs. xl.

M. Dose.—One teaspoonful every two or three hours.

Sig.—Quinine mixture or tonic mixture.

REMARKS.

This mixture should be taken every two hours in the case of a quotidian attack, as soon after the subsidence of the paroxysms as the stomach will accept it, or even during the sweating stage, if the stomach is not especially irritable, and should be continued until the hour of anticipated paroxysms at the same rate, except during the night, from 10 P. M. to 4 A. M., as a general rule. Six to eight doses to be taken during the first interval, and if the attack does not recur, then continue the mixture daily for one week, at a rate diminished by one hour each day.

No. 2.—FOR INTERMITTENT FEVER WITH IRRITABLE STOMACH.

\mathcal{R}	Liquid Lactopeptine,	dr. vi.
	Fl. Ex. Cinchona Comp.,	dr. i.
	Tinct. Zingiber,	dr. iii.
	Spts. Lavender Comp.,	dr. v.
	Aromatic Sulphuric Acid,	dr. i.
	Essence Menth. Pip. or Gaultheria,	gtts. x.
	Sulphate Quinia,	grs. xl.

M. Dose.—One teaspoonful with water *ad libitum* every two or three hours, as in Formula No. 1, and in accordance with the type of the attack. Begin at the rate indicated;

Private Formulas of Pills or other Preparations made to order.

that is, if "Tertian," every three hours, and then after first interval, if the paroxysm does not recur, continue mixture at a diminished rate each succeeding day, as indicated in remarks appended to Formula No. 1, to wit, by increasing the period of time between each dose of medicine an hour every day until a week has passed, when the frequency of dose will be reduced to three times a day, at which rate it should be continued until complete restoration of appetite and strength.

No. 3.—FOR MALARIAL DYSPEPSIA.

\mathcal{R} Liquid Lactopeptine,	dr. fl. vi.
Fl. Ex. Cinchona Comp.,	—
Tinc. Nux Vomica,	aa dr. xi.
Spts. Lavender Comp.,	oz. ss.
Hydrocyanic Acid Dilut.,	dr. ss.
Syr. Aromatic Rhubarb,	oz. ss.
Sulphate Quinine,	dr. ss.

M. Dose.—One teaspoonful with water *ad libitum* at meals (before or after), and at bed time if required; also, use in addition after the meals full doses of Pulv. Lactopeptine with Spts. Lavender Comp. and Lime Water, in case the patient should suffer from positive signs of indigestion, although the dose of Formula No. 3 has already been taken at the meal time, either immediately before or after eating, in accordance with the rule or foregoing instruction.

No. 4.—FOR CHRONIC DIARRHOEA.

\mathcal{R} Liquid Lactopeptine,	dr. vi.
Liq. Opii Comp. (Squibbs'),	dr. iii.
Nitric Acid Dilut.; or, Aqua Regia Dilut.,	dr. i.
Syr. Aromatic Rhubarb,	dr. ii.
Pulv. Nit. Bismuth,	dr. ss.
Aqua Camph.,	oz. ss.

M. Dose.—One teaspoonful with water after each flux from bowels, and as a rule, at bed time, even if the diarrhoea is apparently checked at that hour, and *this rule* should be persisted in for two or three days, or until the diarrhoeal tendency has been entirely subdued.



PEPSIN—PANCREATINE—DIASTASE.

In addition to *LACTOPEPTINE* we manufacture *PEPSIN*, *PANCREATINE* and *DIASTASE*. They are put up separately in one ounce and pound bottles.

They will be found equal in strength with any other manufacture in the world.

They are all presented in a saccharated form, and are therefore very palatable to administer.

COMP. CATHARTIC ELIXIR.

The only pleasant and reliable Cathartic in liquid form that can be prescribed.

Each fl. oz. contains:

Sulph. Magnesia, 1 dr.
Senna, 2 "
Scammony, 6 grs.
Liquorice, 1 dr.
Ginger, 3 grs.
Coriander, 5 "

With flavoring ingredients.

Dose.—Child five years old, one to two teaspoonfuls; adult, one to two tablespoonfuls.

This preparation is being used extensively throughout the country. It was originated with the design of furnishing a liquid Cathartic remedy that could be prescribed in a palatable form. It will be taken by children with a relish.

MAINE INSANE HOSPITAL, AUGUSTA, Feb. 25th, 1875.

I am happy to say that we are much pleased with the Compound Cathartic Elixir. It has, so far, proved the best Liquid Cathartic we have ever used in our Institution. It acts effectively and kindly, without irritation or pain.

H. M. HARLOW, M. D.

PARIS, 1867



Prize Medal.

1868.



Silver Medal.

1872.



Gold Medal.

1873, VIENNA.



Medal of Merit.

BOUDAULT'S PEPSINE,

And Wine, Elixir, Syrup, Pills and Lozenges of Pepsine.

Since 1854, when Pepsine was first introduced by Messrs. CORVISART and BOUDAULT, Boudault's Pepsine has been the only preparation which has at all times given satisfactory results.

The medals obtained by Boudault's Pepsine at the different exhibitions of 1867, 1868, 1872, and recently at the Vienna Exhibition of 1873, are unquestionable proofs of its excellence.

In order to give physicians an opportunity to judge for themselves, all Boudault's Pepsine will hereafter be accompanied by a circular giving plain directions for testing it. These tests will enable any one to satisfy himself of the superiority of Boudault's Pepsine, which is really the *cheapest*, since its use will not subject physicians and patients alike to disappointment.

CAUTION.—In order to guard against imitations each bottle will hereafter be sealed by a red metallic capsule, bearing the stamp of our trade mark, and secured by a band having a fac-simile of the medals, and the signature of Hottot, the manufacturer.

Is sold in 1 oz., 8 oz., 16 oz., Bottles.

E. FOUGERA & CO., New York,

GENERAL AGENTS FOR THE U. S.

E. FOUGERA & CO.'S Medicated Globules.

The form of Globules is by far the most convenient as well as the most elegant form for administering liquid preparations or powders of unpleasant taste or odor. The following varieties are now offered :

Globules of Ether ; Chloroform ; Oil of Turpentine ; Apioi ;

Phosphorated Oil, containing 1-60th grain of Phosphorus ;

Phosphorated Oil, containing 1-30th grain of Phosphorus ;

Tar ; Venice Turpentine ; Copaiba ; Copaiba & Tar ;

Oleo-Resin of Cubebs ; Balsam of Peru ;

Oil of Eucalyptus ; Cod Liver Oil ; Rhubarb ;

Bi-carb. of Soda, Sulph. Quinia, &c.

The superiority of these Globules over other forms consists in the ease with which they are taken, and in their ready solubility and hence promptness of action.

They are put up in bottles of 100 each.

For descriptive circulars and samples address,

E. FOUGERA & CO.,

30 North William Street, New York.

MATHEY-CAYLUS'

GLUTEN CAPSULES

OF PURE COPAIBA.

AND OF THE FOLLOWING COMBINATIONS:

Copaiba and Cubebs; Cop. and Citrate of Iron; Cop. and Rhatany; Cop., Cubebs and Rhatany; Cop., Cubebs and Carbonate of Iron; Cop., Cubebs and Alum; Cop. and Magnesia; Cop. and Catechu; Cop. and Subnitrate of Bismuth; Cop. and Tannic Acid; Cop. and Tar; Cop., Pepsine and Bismuth; Cubebs pure; Cubebs and Alum; Cubebs and Turpentine; Cubebs and Tannate of Iron; Venice Turpentine; Noricay Tar; Cop. and Sandal Wood Oil; Cop., Cubebs and Sandal Wood Oil; Cop., Iron and Sandal Wood Oil.

Mathey-Caylus' Capsules, introduced into the U. S. in 1853, have achieved a decided success on account of the great care taken in their preparation, and of their universal efficacy. They present the most perfect mode for administering Copaiba, Cubebs, Tar, Turpentine, and other remedies, the disagreeable odor and taste of which are often a hindrance to their use. Being formed of a thin, transparent and readily assimilated coating, they so cover and disguise the medicine to be given that it can be taken with ease, and they offer the special advantage of never causing nausea, eructations or dyspeptic symptoms, which are complained of by many persons using other preparations.

DOCTOR RABUTEAU'S

DRAGEES, ELIXIR AND SYRUP OF

Proto-Chloride of Iron.

Dr. Rabuteau has proved by physiological experiments that every ferruginous preparation, in order to be absorbed and assimilated, must be first transformed in the stomach into a proto-chloride. Hence these preparations, containing iron already prepared for assimilation without the aid of the gastric juice, have been found pre-eminently useful in *Anæmia*, *Chlorosis*, *Amenorrhœa*, *Leucorrhœa*, and in all cases in which ferruginous preparations are indicated. Experiments conducted in the Hospitals of Paris have given positive proof of their value. The proto-chloride is here presented in an unalterable state, each *dragée* and each *table-spoonful* containing half a grain of the pure salt.

DOCTOR CLIN'S

Dragées and Capsules of Bromide of Camphor.

Bromide of Camphor, which has been but recently introduced in this country, and principally through the agency of Dr. W. A. Hammond, possesses undoubted properties of a sedative character. It is one of the most clearly defined *anti-spasmodics*, and acts as a *hypnotic* and as a *sedative* of the nervous and circulatory systems. Dr. Clin's preparations have been found useful in *Insomnia*, *Chorea*, *Hysteria*, *Paralysis Agitans*, *Nervous Cough*, and in all cases where a sedative is indicated. Owing to the bad taste and penetrating odor of this substance, these two forms will be found very useful. Each *dragée* contains nearly two grains, and each capsule nearly four grains of the salt. The *dragées* are sold in bottles of 60 *dragées*; the capsules in bottles of 50 capsules.

Prepared by CLIN & CO., Pharmacists, Paris.

E. FOUGERA & CO., Agents, New York.

DEFRESNE'S

Pancreatic Emulsion of

COD LIVER OIL.

Representing Cod Liver Oil in a state of perfect emulsion, and hence readily borne by the most delicate patient.

DEFRESNE'S PANCREATINE, the active principle of the pancreatic juice, is a most important remedy in a great many cases of Indigestion, Atony of the digestive organs, and various forms of Dyspepsia, when Pepsine and other remedies have failed.

As a Help for the Digestion of Fats, physicians will find **Pancreatine** invaluable to patients who are unable to support Cod Liver Oil, or fatty substances.

The dose of **Pancreatine** is 5 to 15 grains, according to the nature of the case, taken before or during meals. *It is sold in bottles containing Half or One ounce.*

The following Preparations of **Pancreatine** are also offered:

PANCREATINE PILLS, containing 4 grains each.

PANCREATINE WINE and **ELIXIR**, given in doses of one or two tablespoonfuls.

PANCREATIC EMULSION OF SOLID FAT, fresh and sweet, representing fat perfectly emulsified and ready for immediate absorption.

Mr. Defresne having made **Pancreatic** preparations a subject of special study for several years, has succeeded in obtaining them in great perfection, and hence they are recommended as superior to similar preparations heretofore offered.

Ferro-Manganic Preparations of BURIN Du BUISSON.

The superiority of combinations of the Salts of Iron and Manganese over those of Iron have been fully established by the experiments of Dr. Petrequin. The following *Ferromanganic preparations*, approved by the Imperial Academy of Medicine of Paris, have been originated by Mr. Burin Du Buisson in accordance with these experiments, and are confidently recommended to the medical profession as replacing advantageously all medicines having iron as their base, especially in *chloroanæmia, chlorosis, and all affections caused by the poverty of the blood*:

Ferromanganic Powder, for effervescing water.

Carbonate of Iron and Manganese Pills.

Syrup of the Lactate of Iron and Manganese.

Dragees of the Lactate of Iron and Manganese.

Syrup of the Proto-Iodide of Iron and Manganese.

Pills and Dragees of the Proto-iodide of Iron and Manganese.

Manganic Iron reduced by Hydrogen.

Grimault's Indian Cigarettes,

Prepared from the Resin of Cannabis Indica.

Asthma, Bronchitis, Loss of Voice, and other affections of the respiratory organs, are promptly cured or relieved by the use of these cigarettes.

E. FOUGERA & CO., New York, Agents

Raquin's Capsules.

An experience of over thirty years has established the fact that **GLUTEN**, as a coating for **Copaiba** and similar remedies, is far superior to gelatine. The coating is more easily dissolved, and being thinner, allows a larger amount of **Copaiba** to be administered in a capsule of the same size.

The process of Mr. Raquin, originated in 1837, has been approved by the Academy of Medicine of Paris, and the capsules bearing his name have been found to possess advantages over all others, on account of

THEIR RELIABILITY—All ingredients used being carefully selected.

THE CARE used in their preparation.

THEIR READY SOLUBILITY, and consequent prompt action.

THE ENTIRE ABSENCE OF ERUCTIONS,

which are sure to follow the use of gelatine capsules containing liquid **Copaiba**.

Physicians desiring to use **Balsam of Copaiba** pure, or combined with other remedies, will find **Raquin's Capsules** among the best. The following combinations are now offered

Capsules of Copaiba Pure.

“ **Copaiba and Matico.**

“ **Copaiba and Rhatany.**

“ **Copaiba and Subnate Bismuth.**

Capsules of Copaiba and Cubebs.

“ **Copaiba and Iron.**

“ **Copaiba and Tar.**

“ **Pure Turpentine.**

BLANCARD'S PILLS OF UNCHANGEABLE IODIDE OF IRON.

Blancard's Pills of Iodide of Iron are so scrupulously prepared, and so well made, that none other have acquired a so well deserved favor among physicians and pharmacutists. Each pill, containing one grain of proto-iodide of iron, is covered with finely pulverised iron, and covered with balsam of tolu. Dose, two to six pills a day. The genuine have a *reactive silver seal* attached to the lower part of the cork, and a green label on the wrapper, bearing the fac-simile of the signature of



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without which none are genuine.

BEWARE OF IMITATIONS.

Cusset Vichy Waters

ELIZABETH—Alkaline, Magnesian Spring.

STE. MARIE—Alkaline, Ferro-Manganic Spring.

These waters are unsurpassed among the best alkaline waters of Europe.

The waters of the **Elizabeth Spring** are richest in Bi-carbonate of Soda and Magnesia of all the **Vichy Waters**, and are recommended especially for **Congestion of the Liver and Spleen**; diseases of the **Stomach, Kidneys and Bladder**, and for **Gravel, Gout and Rheumatism**.

The waters of the **Ste. Marie Spring** are very efficacious in **Anemia, Chlorosis, Intermitent Fevers**, and very remarkable results have been obtained from their use in the treatment of **Diabetes**.

E. FOUGERA & CO., New York, Agents.

PURE COD-LIVER OIL,

Manufactured on the Sea-Shore by HAZARD & CASWELL, from Fresh and Selected Livers.

The universal demand for Cod Liver Oil that can be depended on as strictly pure and scientifically prepared, having been long felt by the Medical Profession, we were induced to undertake its manufacture at the Fishing Stations, where the fish are brought to land every few hours, and the Livers consequently are in great perfection.

This oil is manufactured by us on the sea-shore, with the greatest care,

from fresh, healthy Livers of the Cod only, without the aid of any chemicals, by the simplest possible process and lowest temperature by which the Oil can be separated from the cells of the Livers. It is nearly devoid of color, odor and flavor—having a bland, fish-like, and, to most persons, not unpleasant taste. It is so sweet and pure that it can be retained by the stomach when other kinds fail, and patients soon become fond of it.

The secret of making good Cod-Liver Oil lies in the proper application of the proper degree of heat; too much or too little will seriously injure the quality. Great attention to cleanliness is absolutely necessary to produce sweet Cod-Liver Oil. The rancid Oil found in the market is the make of manufacturers who are careless about these matters.

PROF. PARKER, of N. Y., says: "I have tried almost every other manufacturer's Oil, and give yours the decided preference."

PROF. HAYS, State Assayer of Massachusetts, after a full analysis of it, says: "It is the best for foreign or domestic use."

After years of experimenting, the Medical Profession of Europe and America, who have studied the effects of different Cod-Liver Oils, have unanimously decided the light straw-colored Cod-Liver Oil to be far superior to any of the brown Oils.

The Three Best Tonics of the Pharmacopoeia: IRON—PHOSPHORUS—CALISAYA.

CASWELL, HAZARD & CO. also call the attention of the Profession to their preparation of the above estimable Tonics, as combined in their elegant and palatable **Ferro-Phosphorated Elixir of Calisaya Bark**, a combination of the Pyrophosphate of Iron and Calisaya never before attained, in which the nauseous inkiness of the iron and astringency of the Calisaya are overcome, without any injury to their active tonic principles, and blended into a beautiful Amber-colored Cordial, delicious to the taste and acceptable to the most delicate stomach. This preparation is made directly from the **ROYAL CALISAYA BARK**, not from **ITS ALKALOIDS OR THEIR SALTS**—being unlike other preparations called "Elixir of Calisaya and Iron," which are simply **Elixir of Quinine and Iron**. Our Elixir can be depended upon as being a true Elixir of Calisaya Bark with Iron. Each dessert-spoonful contains seven and a half grains of Royal Calisaya Bark, and two grains Pyrophosphate of Iron.

Ferro-Phosphorated Elixir of Calisaya Bark with Strychnia. This preparation contains one grain of Strychnia added to each pint of our Ferro-Phosphorated Elixir of Calisaya Bark, greatly intensifying its tonic effect.

Ferro-Phosphorated Elixir of Calisaya with Bismuth. containing eight grains Ammonia-Citrate of Bismuth in each tablespoonful of the Ferro-Phosphorated Elixir of Calisaya Bark.

Elixir Phosphate Iron, Quinine and Strychnia. Each teaspoonful contains one grain Phosphate Iron, one grain Phosphate Quinine, and one sixty-fourth of a grain of Strychnia.

Ferro-Phosphorated Elixir of Gentian. containing one ounce of Gentian, and one hundred and twenty-eight grains Pyrophosphate Iron to the pint, making in each dessert-spoonful seven and one-half grains Gentian to two grains Pyrophosphate Iron.

Elixir Valerianate of Ammonia. Each teaspoonful contains two grains Valerianate Ammonia.

Elixir Valerianate of Ammonia and Quinine. Each teaspoonful contains two grains Valerianate Ammonia and one grain of Quinine.

Ferro-Phosphorated Wine of Wild Cherry Bark. Each fluid-drachm contains twenty-five grains of the Bark, and two grains of Ferri-Pyrophosphate.

Wine of Pepsin. This article is prepared by us from fresh Rennets and pure Sherry Wine.

Elixir Taraxacum Comp. Each dessert-spoonful contains fifteen grains of Taraxacum.

Elixir Pepsin, Bismuth, and Strychnine. Each fluid-drachm contains one sixty-fourth of a grain of Strychnine.

Juniper Tar Soap. Highly recommended by the celebrated Erasmus Wilson, and has been found very serviceable in chronic eczema and diseases of the skin generally. It is invaluable for chapped hands and roughness of the skin caused by change of temperature. It is manufactured by ourselves, from the purest materials, and is extensively and successfully prescribed by the most eminent physicians.

Iodo-Ferrated Cod-Liver Oil. This combination holds sixteen grains Iodide of Iron to the ounce of our pure Cod-Liver Oil.

Cod-Liver Oil, with Iodine, Phosphorus, and Bromine. This combination represents Phosphorus, Bromine, Iodine, and Cod-Liver Oil, in a state of permanent combination, containing in each pint: Iodine, eight grains; Bromine, one grain; Phosphorus, one grain; Cod-Liver Oil, one pint.

Cod-Liver Oil, with Phosphate of Lime. This is an agreeable emulsion, holding three grains Phosphate of Lime in each tablespoonful.

Cod-Liver Oil, with Lacto-Phosphate of Lime.

CASWELL, HAZARD & CO.,
Druggists and Chemists, New York.

ESTABLISHED 1856.

A. M. LESLIE & CO..

Manufacturers of and Wholesale and Retail Dealers in

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BRACES. TRUSSES

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Where they have opened a GREATLY INCREASED Stock of the above articles which they will sell for Cash as low as the Eastern manufacturers.

Parties ordering may rely on getting suited, or the goods may be returned.

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LESLIE'S IMPROVED

Physician's

Saddle Bags

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The most complete, compact
and durable bags in the mar-
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